CES roundup | MacWorld report | Digital Design Contest

Canadian Publication Mail Sales Product Agreement #6169021

Toronto computes!

The technology lifestyle magazine

www.canadacomputes.com FREE

FEBRUARY 2003

trader classified media

LOOKING FOR A HOME

ENTERTAINMENT CENTRE

HP Media PC | Go golfing | Digital Flash | Starting a Palm life

Looking for the Best Value in Internet Access?

Dial-Up Access

Dial-Up Product Matrix	15 Hours	50 Hours	100 Hours	150 Hours	Unlimited	Unlimited Dual Login
Monthly Price	$5.00	$9.95	$14.95	$19.99	$19.99	$29.99
Yearly Price	$60.00	$99.50	$149.99	$199.99	$239.99	$299.99
Additional Hours	$1.00	$1.00	$0.50	$0.50	N/A	N/A
E-Mail Addresses	1	1	2	5	4	8
WebSpace	5 MB	10 MB	10 MB	20 MB	20 MB	30 MB
Spam Filtering	FREE	$10/Yr*	$10/Yr*	$10/Yr*	$10/Yr*	$10/Yr*
Anti-Virus Filtering	$10/Yr*					
WebMail Access	FREE	FREE	FREE	FREE	FREE	FREE

New User Special!

> UNLIMITED ACCESS!
> 56K v.90 Dial-Up
> 1 E-Mail Address
> 10MB WebSpace
> WebMail Access

$99.99/yr!

Look No Further!

High Speed DSL SPECIAL

> 1Mb PPPoE
> Unlimited Access
> 5 E-Mail Addresses
> 10Mb WebSpace
> 20hrs Free Dial-Up!

Starting from **$24.95** per month***

Residential DSL Access

DSL Product Matrix	Static IP	Unlimited Access	Transfers /Month**	Virtual Host	E-Mail Addresses	Web Space	Dial-Up Access	Modem Included	Set-Up Fees	Monthly Fees
1Mb PPPoE	N	Y	15GB	N	5	10MB	20 Hr/mth	N	N/A	$34.95
3Mb PPPoE	N	Y	15GB	N	5	10MB	20 Hr/mth	N	N/A	$69.95
1Mb PPPoE/HO	N	Y	15GB	Y	10	50MB	20 Hr/mth	N	$50.00	$59.95
3Mb V-Lan	Y	Y	20GB	N	5	10MB	20 Hr/mth	Y	$275.00	$109.95
3Mb V-Lan/HO	Y	Y	20GB	Y	10	100MB	30 Hr/mth	Y	$275.00	$134.95

* SPAM and Anti-Virus Filtering available for $10 per year with the pre-payment of a years service. ** Additional transfers billed at the rate of $4.90 per GB.
*** $24.95 per month for the first 3 months then price reverts to $34.95 per month. Modem rental not incuded.

ECHO OnLine

416-385-0459

http://www.eol.ca

Serving the GTA since 1995!

2600 Skymark Ave., Building 9 Suite 201, Mississauga, Ontario L4W 5B2

(C) 2002 Echo Online Internet Inc. All Rights Reserved. Prices subject to change without notice. Taxes NOT included.

FLATRON L1800P

18.1" FLATRON LCD

Super Slim Bezel (1.7cm)
VESA Mount Compatible
Pivot Enabled
Height Adjustable
Dual Interface

Flat Out Brilliant!

Bright, vibrant displays with one-third the weight and footprint of typical picture tube monitors. As a leading developer and manufacturer of active matrix TFT-LCD monitors, LG Electronics is not only at the height of newer and greater display technology, it also brings efficiency in design, performance and reliability. LG FLATRON LCD... for a better viewing experience at your workstation. Find out more at www.flatron.com

LG FLATRON LCD monitors are available in 30, 22, 18, 17 and 15 inch screen sizes.

295LM
22"
PIP Function/ Multimedia

L1800PK
18"
Black Cabinet, Narrow Bezel/ Pivot Function

566LM
15"
Silver Bezel/Black Base, Built-in Stereo Amplifier and Speakers

786LS
17"
Silver Bezel/ Black Base, VESA Standard

L1511S
15"
Two Tone Grey Cabinet, Narrow Bezel, VESA Wall Mount Compatible

L1511SK
15"
Black Cabinet, Narrow Bezel, VESA Wall Mount Compatible

FLATRON™ *freedom of mind*

www.lg.ca
1-888-LGCANADA

LG and the LG logo are registered trade marks of LG Electronics Canada Inc.

LG
Digitally yours

225BR614

contents

Features

14 The PC emerges as a home entertainment server
22 Home theatre audio on the cheap
29 Turning students into info scavengers
36 Text messages come to car radios
42 Good times at Mac love-in Macworld post-show report
49 Multi-region DVD players open up a world of movies

Reviews

16 Frivolous, fun and just better
20 A cacophony of convergence at CES
28 Moving from paper to Palm
46 Stuffing Windows
48 Locking the virtual front door
49 FlashDio offers secure storage

CreativeTech

34 Musical Odyssey: Bang the drum electronically
35 Adventures in digital video: Golden rules and mean screens
37 Digital Words: Adobe PDF and a printer's paradise
38 Digital Shots: Figuring out flash

See page 54 for details on a new Photo Spree Assignment.

Enter our annual Digital Design Contest. See page 62 for details.

Regulars

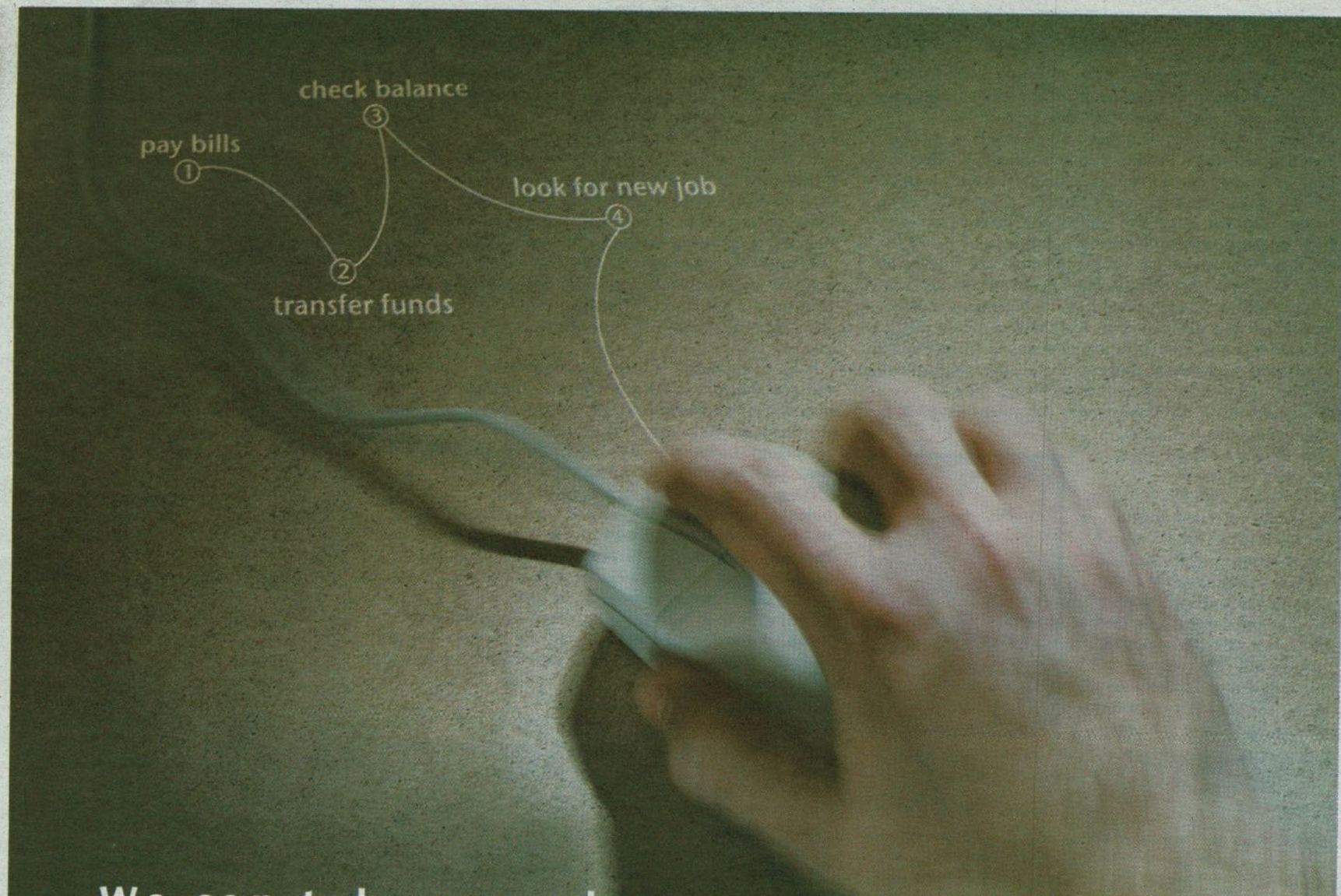
6 Letters
8 News Briefs
10 New Products
41 Kids: Baby Einstein comes to the PC
41 Kids: Kidproof your computer files
44 The World is My Cubicle by Alan Thwaits
45 Linfield's Line by Kevin Linfield
47 Mac Chronicles by Dwayne R. Brown
62 Profile: Josh Avery

Cyberplay

50 Cyberbriefs
51 Pink flamingo heaven
52 Hit the *Links* from the warmth of home
53 Take on Tiger in *PGA Tour 2003*
54 Game On! by Marc Saltzman
55 Do you have a *Need for Speed?*
56 *Battle at Procyon* continues adventures of Jim Hawkins
58 At Play by Sharlene Myers
60 PC gaming: What's coming ...

toronto computes!

February 2003



We can take you where you want to be, *fast.*

Sympatico® *High Speed*

Whether it's banking or checking the job market, with Bell **Sympatico™ High Speed** Internet service, you can do all of these things online. It's always fast – even during peak hours![‡] And it can leave you with more time to spend on the things that matter most to you, like family and friends. Plus, it leaves your phone line free, so you won't miss important calls.

FREE first month*

BONUS MUSIC PACKAGE!**
MUSICMATCH® Jukebox Plus software
1 month of MUSICMATCH MX service

AN INCREDIBLE $80 VALUE!

Call **1 877 567-5021** today.
Visit **www.bell.sympatico.ca/gofast**
or your nearest Bell World store.

Bell

go

[‡]Download speeds online can vary with Internet traffic, server or other factors. *Sympatico High Speed Internet service is available only to residential customers where technology permits. Regular monthly rate applies in month two (currently $44.95/month) and includes access, modem use and 10GB of combined download and upload bandwidth activity. Additional charges apply for excess bandwidth usage. Rates subject to change and exclude applicable taxes. **MUSICMATCH MX service (currently $7.95/month) and Jukebox Plus software (currently $29.95) are available only to residents of Canada. MUSICMATCH MX service and Jukebox Plus software are provided by MUSICMATCH Inc. Minimum system requirements and other terms and conditions apply and are set out at www.musicmatch.ca. MUSICMATCH MX and Jukebox Plus are not compatible with Macintosh® operating systems. Additional hardware and/or software may be required in order to use MUSICMATCH MX and Jukebox Plus with Sympatico High Speed Internet service. Offer ends March 31, 2003, and is available to new Sympatico High Speed subscribers only. Offer subject to cancellation or change without notice and cannot be combined with any other Bell Sympatico offer. Other conditions and restrictions apply. For full details, go to www.bell.sympatico.ca/gofast or call 1 866 597-7582.

Sympatico is a trade-mark of Bell Canada; MUSICMATCH® is a registered trademark of MUSICMATCH Inc.; Macintosh is a trademark of Apple Computer, Inc., registered in the U.S. and other countries.

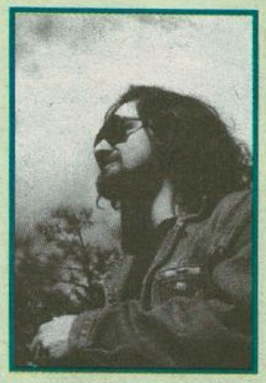
22581714

From the editor

If you are like me, there is a ton of technological flotsam and jetsam in your life. Technology has a way of advancing and leaving a lot of debris in its wake.

This editorial column is inspired by the death of my Mac Plus. The fact that it lived so long is a wonder. The fact that I care is another one. I like the original Macintosh shape. It has this classic industrial look that is not surpassed – even by the ubiquitous iMac. The original Mac looked great with its boxy shape and tiny black and white screen.

It is the display that has bought the farm. The monitor on those Macs was always the Achilles heel. My monitor lasted a long time but finally packed it in. I'm looking at it, with its external 120 MB hard drive, and think to myself that it is the end. I haven't used it for a long while, so I won't miss it in terms of productivity. However, there is the sentimentality. I hold on to these machines even though they are absolutely useless. I still have every computer I have had but one. (My brother has a 350 MHz PC that I bought when 350 MHz was fast.)



My Amiga 1000 sits forlorn in my mom's basement. Right next to it is the 386 PC, with 4 MB of memory, which has had some parts cannibalized – the floppy drive and hard disk are missing. On a shelf above these two computer relics is my old 286 laptop – my computer mainstay through three years of travel. The hard drive refuses to boot up and I have not gotten around to fixing it – there are some important files on the hard drive, I think. At my place of abode I have my old Mac Plus, whose screen just died, and a Mac Powerbook whose battery won't hold a charge.

The Mac Powerbook's screen size is nearly the same size as the one on the Mac Plus. It would be nice to be able to grab the one from the Powebook and put it into the Mac Plus, but they are not compatible with each other. I was thinking of emptying the guts of the Mac Plus and fitting the Powerbook's guts into the Mac Plus case, but after playing with my Powerbook, after years of neglect, I realized that, being a pre-Power PC Mac, it is not very good for anything that I would want it to do – it won't play MP3s, for example.

Don't be confused – I have leading-edge stuff that I use to test new software and peripherals. It is just that I have never disposed of any obsolete equipment. I've always believed that I can somehow make use of these obsolete relics of technology. I own three dot-matrix printers, for crying out loud. I still have hope for them.

The death of my Mac Plus's monitor has changed my attitude. I'm not going to keep any of these technological cadavers around me any more. If you want the Amiga 1000, drop me a line. The 386 PC is going to the recycling bin. The 286 laptop will have one last shot of redemption, just to get the files that may or may not be there, before it heads to recycling as well. The Mac Plus's case will be converted to a speaker for my stereo once a similar case is found. The Mac Powerbook will hang around for a little bit longer -- for sentimental reasons.

Nestor Gula can be reached by e-mailing nestor@tcp.ca ◆

Reader Feedback

Micro-payments: More Canadian options

Re: Small business still waiting for micro-payment systems, *TC!* January

In your informative and useful article on micro-payments for small business you missed one of the best (in my opinion) providers, namely Internet Secure (www.internetsecure.com).

It is a Canadian company providing to its member-businesses the ability to accept online payments via the major credit cards, in either Canadian or US dollars (or any other currency), without requiring its customers to establish additional accounts such as "wallets." Its credit card discount rate is comparable to the rates banks give to their small business accounts. My experience as a member-merchant has been very positive.

Themmis Anno

A case for responsible upgrades

Re: Entry-level flat panels, *TC!* January. In your article about flat panel displays Dave Chappelle makes a good argument for making the upgrade from a cathode ray tube (CRT) monitor to a more space and energy efficient liquid crystal display (LCD) model.

However, it is important for your readers to note that in making the upgrade, something has to be done with the outdated CRT monitor. If readers can "trade it for a case of beverage," so much the better, but failing some sort of re-use, arrangements have to be made for proper disposal of the monitor and the hazardous materials it contains, most notably, between seven and nine pounds of lead in your standard 15-inch CRT.

Leaving a monitor to languish in landfill is not an option. Rather, readers should seek out proper disposal routes, though this will usually cost the person getting rid of the monitor, as the recovered materials don't cover the cost of proper disposal.

Please ask your readers to not just dump their outdated CRTs (monitor, television or otherwise) but to arrange for proper and less harmful disposal.

George Artemenis

The Editor *Toronto Computes!*
625 Church St., Suite 600, Toronto, ON M4Y 2G1
tcletters@tcp.ca

Letters on issues raised in the paper or general computer topics are welcome. Please be brief. We regret that we are unable to look up stories from past issues, suggest products, or solve all your computer problems. All correspondence must include your full name in addition to your e-mail or snail-mail address. Letters may be edited for space or content.

Letter of the Month

For his letter this month, George Artemenis wins a copy of *No One Lives Forever 2: A Spy in H.A.R.M.'s Way. NOLF2* is the sequel to the award-winning *The Operative: No One Lives Forever* and continues the story of Cate Archer as she goes up against *H.A.R.M* minions. Players must rely on stealth and wits and occasionally sheer brute force to avert a nuclear holocaust.

Toronto computes!

CCP Editorial Director
David Tanaka
Editor
Nestor Gula, *nestor@tcp.ca*
Managing Editor
Chris Talbot, *chris_talbot@tcp.ca*
Assistant Editor
Andrew Moore-Crispin, *andrew_moore-crispin@tcp.ca*
Contributing Editors
Lynn Greiner, Kevin Linfield, Marc Saltzman, Alan Thwaits, Samson Okalow
Copy Editor
Sharlene Myers
Art Director
Helga Stitt
Online Editor
Jessica Malone

Publisher/General Manager
Dick Peters
Associate Publisher
Rob Crawford, *rob@tcp.ca*
Production/Distribution Director
Maxine Lewis, *maxine_lewis@tcp.ca*
Production
Chris Brockley, Steve Stoner, Sabrina Garafalo, Lara Bazant, Roxanna Bennett
IT Department
Steve Quinney, Dan Wojtkiewicz
Marketing Manager
Natalia Nossovskaia, *natalia_nossovskaia@tcp.ca*
National Sales Manager
Ian Harling, *ian_harling@tcp.ca*
Corporate Account Manager
John Chiasson, John_Chiasson@tcp.ca
Advertising Sales *onsales@tcp.ca*
Scott Piccolo, Ralph Ventriglia
Advertising Coordinators
Donna Goddard, *donna@tcp.ca*,
Karen Samuels, *karen_samuels@tcp.ca*
Classified Sales
Donna Eng, *adclass@tcp.ca*
Circulation
Tracy Magee-Graham
Distribution
Gabriella Dan

About the cover
Our February cover was designed by Chris Brockley.

Toronto Computes! is published monthly by Canada Computer Paper Inc. under licence from **Canada Computer Paper Inc.**

Canada Computer Paper Inc. Corporate Office
625 Church St., Suite 600, Toronto, ON M4Y 2G1
Tel: (416) 923-4200 Fax: (416) 923-5394
Copyright 2003
unless otherwise specified.

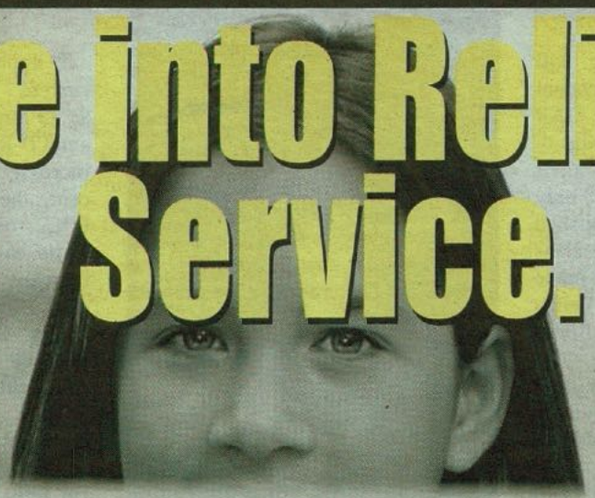
Subscriptions *subscriptions@tcp.ca*
1-800-465-3517 x 1273
Subscriptions: $19.99 ($21.39 with taxes) a year
U.S. subscriptions: US$75, Overseas subscriptions: Can$135
Mail cheques or money orders (payable to *Toronto Computes!*) to:
Toronto Computes!
625 Church St., Suite 600, Toronto, ON M4Y 2G1
Tel: (416) 923-4200 Fax: (416) 923-5394

Canadian Publication Mail Sales Product Agreement #0169021
Printed in Canada ISSN 297433
Toronto Computes! is distributed free through hundreds of stores, restaurants & boxes around Metro Toronto.

ccab

The publisher reserves the right to refuse sexist, racist, or otherwise offensive advertising. The publisher also reserves the right to be the final judge of what is appropriate. Information in both editorial and advertising is believed to be true, however, the publisher assumes no responsibility for errors or omissions.
Announcements: *pressreleases@tcp.ca*
March 2003 Issue: Music
Ad deadline: Monday, February, 17
Distribution: Wednesday, February, 26
The full text of TC! is available online at:
www.canadacomputes.com

Ease into Reliable Service.



WHY SHOULD INTERNET ACCESS BE A HASSLE?

WE MAKE IT EASY

At Pathway Communications, we work hard to ensure that your connection is always up and that you have access to your vital information all day, every day. And, unlike some other providers, there are no extra charges or limits to downloads, ever. When you sign on with Pathway, you receive affordable and reliable service with prompt, friendly, and knowledgeable technical support whenever you need it. Guaranteed!

FOR YOUR HOME

DIAL-UP INTERNET SERVICES

Plan	Free hours per month	Free Web Space	Free Mailboxes	Monthly Fee	Annual Fee
PLAN 1	50	2 MB	1	$ 9.95	$ 99.00
PLAN 1F (Family)	100	5 MB	2	$14.95	$149.00
PLAN 2 (Family)	150	7 MB	3	$19.95	$199.00
PLAN 3	Unlimited!	9 MB	4	$25.95	$279.00
PLAN 3F (Family)	350	12 MB	5	$25.95	$279.00

One time installation fee of $30

FastPath, Unlimited HIGH SPEED ADSL residential Internet access with e-mail virus protection, and spam control, - all for only $34.95 per month!

FOR YOUR BUSINESS

WEB & EMAIL HOSTING

	Web Space	Email Addresses	Monthly Fee
Web 1	40 MB	10	$19.95
Web 2	100 MB	20	$29.95
Web 3	200 MB	40	$59.95

One time installation fee of $35

1.5/3.0 Mb ADSL
128K Dedicated ISDN
Special Offer: $199/mo.
T1 Dedicated Access
Server Co-Location
Visit our website for added features!

pathway communications

Serving Toronto since **1995**

Corporate Resellers Welcome
Please call ext. 2885 for information

416 214-6363

1 Yonge Street, Suite 2205, Toronto, ON M5E 1E5 info@pathcom.com, www.pathcom.com

22584814

Retailers join forces to fight media levy

By ANDREW MOORE-CRISPIN

A not-for-profit organization called the Canadian Coalition for Fair Digital Access (CCFDA, at www.ccfda.ca) is setting itself up to oppose the proposed hike in the levy on recordable media.

The CCFDA is a coalition of Canadian retailers including Dell, Staples Business Depot, Radio Shack, Intel and Wal-Mart Canada, among others.

The current levy is applied to CD-recordable media and cassette tapes, with the money collected theoretically going to recording artists and record companies to compensate them for piracy of their intellectual property.

As it stands, the CPCC has collected in excess of $3 million which has yet to be dispersed and still sits in the collective's coffers, the CCFDA says.

The expanded levy will be imposed on media not exclusive to MP3 players such as Flash Media, CompactFlash and Microdrive cards, found in many consumer digital cameras.

An independent band, Montreal-based The Datson Four, (www.datsonfour.com) played at the CCDFA press event in an attempt to demonstrate how the proposed levy increase will hinder independent bands using CD-R and other media to distribute their music, and will only benefit established Canadian musicians like the oft-made examples of Celine Dion and Bryan Adams.

"Performers and other copyright holders should be compensated fairly for their work," said Diane Brisebois, president of the Retail Council of Canada, "but not on the backs of people who are not pirates and don't even use these products to copy music.

"The current levy scheme won't help young bands like [the Datson Four]; it will only be a windfall for established artists and their record and publishing companies," she said.

If approved, the current levy of $1.23 on MiniDisc and CD-R audio will increase 60 per cent, the $.29 the CPCC collects on audio cassettes will increase 107 per cent and CD-R media will have another 181 per cent added to the current $.21 per disc levy.

For sale: Small California town

While real estate sales on eBay are nothing new, an American family achieved an eBay first by putting the town of Bridgeville, California on the virtual auction block.

The 82-acre town sits about 550 km north of San Francisco. The successful bidder received the town, complete with four cabins, nine houses and a cemetery.

The town's 300 residents aren't part of the deal, but those willing to speak to the news media that have been blitzing the town since the sale was announced have been generally happy about the sale, saying changes to the town could only really be positive, given its current dilapidation.

The sale included pretty well everything in the town with the exception of the roads and school, which are owned by the state, as well as the town bridge, which has been declared a national historic site.

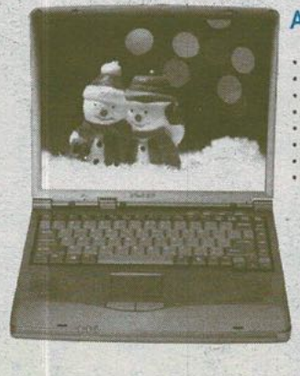
The bidding topped out at US$1,777,877, more than double the minimum asking price of US$750,000.

No information is available on the winning bidder at time of writing, and the sellers, a brother and sister team, would be advised not to get their hopes up just yet as big ticket sales, much-hyped eBay auctions are often subject to bogus bids. The seller of hip-hop star Eminem's childhood home found this out the hard way, as bidding on that auction skyrocketed into the multi-million dollar range, but turned out to be much ado about nothing; the highest legitimate bid didn't even meet the minimum reserve, set at US$120,000. ◆

ANGEL COMPUTERS

Your Mobile Computing Specialist

Your Valentine is Here!



ANGEL 2200 SMARTNOTE

- Intel Celeron 1 GHz, Upgradeable to P III
- 13.3"TFT Active Matrix LCD 1024x768
- 256 MB RAM, PCI 133
- 20.0 GB Hard Drive
- Built-in 56K V.90 Modem
- Built-in 10/100 Ethernet
- FireWire Port & PCMCIA Expansion slots
- Keyboard, Mouse & Windows XP Home

STARTING AT $1,399

OR LEASE FOR $50/ MONTH*

Windows XP

All Angel Computers are Customized & Upgradeable

NOTEBOOKS

2700 POWERNOTE
- 14.1"TFT LCD 1024x768
- Intel Pentium 4 1.8 GHz
- 256 MB SD RAM
- 20.0 GB Hard Drive
- Window XP Home

FROM $1,899

2500 SUPERNOTE
- 14.1"TFT LCD 1024x768
- Intel P4 Celeron 1.7 GHz
- 256 MB RAM 266 MHz
- 20.0 GB Hard Drive
- Window XP Home

FROM $1,899

2600 GIGANOTE
- 15.1"TFT LCD 1400x1050
- Intel Pentium 4 1.8 GHz,
- 256 MB RAM 266 MHz
- 20.0 GB Hard Drive
- Window XP Home

FROM $2,499

2800 MEGANOTE
- 15.7"TFT LCD 1280x1024
- Intel Pentium 4 1.8 GHz,
- 256 MB RAM 266 MHz
- 20.0 GB Hard Drive
- Window XP Home

FROM $2,899

LCD PC

3300 LCD PC
- 15.1"TFT LCD 1024x768
- Intel Celeron 1.1 GHz
- 40.0 GB HDD 7200 RPM

FROM $1,599

4500 LCD PC
- 15.1"TFT LCD 1024x768
- Intel P4 Celeron 1.7 GHz
- 40.0 GB HDD 7200 RPM

FROM $1,899

4700 LCD PC
- 17"TFT LCD 1280x1024
- Intel Pentium 4 1.8 GHz
- 40.0 GB HDD 7200 RPM

FROM $2,399

1U / 2U SERVERS
- 1U SERVER Pentium Celeron $1,299
- 2U SERVER Pentium III

FROM $2,399

NOTEBOOK ACCESSORIES

FIREWIRE EXTERNAL DRIVES
CD-RW 42x10x40 ..... $299
PIONEER A04 DVD-R/W $499

GPS PCMCIA OR COMPACT FLASH CARD
Window XP, 2000, Me, 98.
External Antenna Included. $299

CELLULAR READY H/W PCMCIA MODEM
Ositech Communication $129

3 PORTS USB 2.0 or FIREWIRE PCMCIA CARD
Window XP, 2000, Me, 98 ..... $ 99

2 SERIAL PORTS PCMCIA CARD
Window XP, 2000 ..... $149

UNIVERSAL PORT REPLICATOR
Window XP, 2000, Me, 98 ..... $149

UNIVERSAL CAR or A/C ADAPTORS
Works with most notebooks $129

All prices & specifications are subject to change without the prior notice. E&O.E.

Build your Notebook Online @ www.angelcomputer.com

Angel Notebooks are Assembled in Canada by: Canadian Advanced Industries Ltd.
405 Britannia Rd. East, Unit 11, Mississauga, ON Canada L4Z 3E6
Toll Free: 1-888-32ANGEL Fax: (905) 501-8376 E-mail: halo@angelcomputer.com

Proudly Assembled in Canada

905-501-8375

Toronto Central call 2000's Technology (416) 490-6700 Maple call Global Component (905) 417-1722
For Toronto East Call DSG Laptops (905) 428-1934 • Downtown Toronto call Notebook Universe (416) 366-6683 • Richmond Hill call PC Tek (905) 770-4900 / HS Computing (905) 787-9301

Only **$24.95**/month*

gives you **Look UltraFast DSL™** high speed Internet access... and something to shout about!

Super Fast: Look UltraFast DSL gives you incredibly fast access to a world of online excitement. Download interactive games, music and video up to 30 times faster than a traditional modem.

Always On Get unlimited high speed Internet access with no dialing, no connecting.

Doesn't Tie Up Your Phone Line
You can make or receive calls while you're on the Internet.

Self Install No installation fees. Most customers install Look UltraFast DSL themselves. With Look's simple-to-use-installation kit and our "plug & play" high speed modem you will be up and running in no time!

A Look UltraFast DSL account includes:

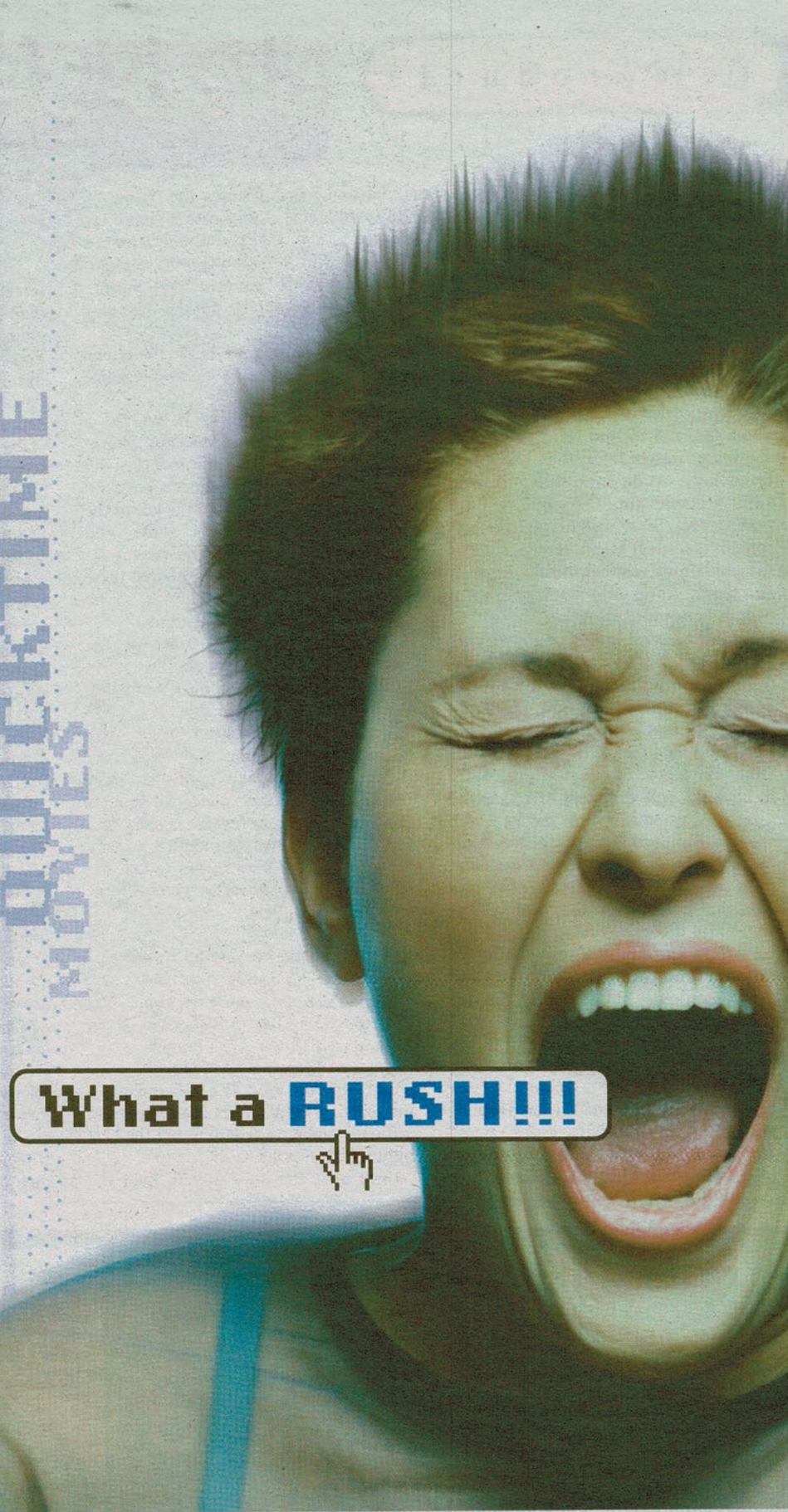
- 5 e-mail addresses
- Look WebMail access
- Free parental filters
- 10 MB of Web space for a home page
- The best customer service/7 days a week

BUT HURRY! THIS MUCH EXCITEMENT IS AVAILABLE IN TORONTO AND MONTREAL FOR A LIMITED TIME ONLY.

Just call 1 877 395-5665 or
全新『中文華語服務熱線』請電1-888-333-0903
visit us at www.look.ca/ultrafast

look®

22574014



*Taxes not included. Service available where technology permits. Certain conditions apply including a one-time modem purchase at a reduced price of $149.95 (reg:$199). One-time activation fee of $29.95 currently waived. Rate of $24.95/month applies for the first 3 months with regular monthly rate of $34.95 taking effect in the 4th month. Offer and rates subject to change without notice. Monthly rate includes 7.5 GB download and 7.5 GB upload of bandwidth activity. Download speed online can vary with Internet traffic, server or other factors. Additional bandwidth may be charged at the rate of $0.00795/MB. Look will not assume expenses incurred to correct any wiring configuration in the subscriber's residence. Look UltraFast DSL is a trademark of Look Communications Inc. © 2002 Look Communications Inc. All rights reserved.

Gates' SPOT predictions spot on?

By ANDREW MOORE-CRISPIN

Gates' SPOT predictions spot on?

Bill Gates unveiled Microsoft's new Smart Personal Objects Technology (SPOT) implemented into wristwatches in his 2003 Consumer Electronics Show (CES) keynote address in Las Vegas.

While the watches are an RF radio shy of the Dick Tracy watch the gadget lover has long desired, Citizen Watch Co., Fossil Inc. and Suunto were on hand to showcase watch lines that use SPOT technology. Aside from being able to keep accurate time through network time setting, SPOT watches deliver personalized content to the screen, such as the ubiquitous weather, headlines, traffic, sports scores and stock quotes, as well as personal messages.

The information these smart watches receive will be sent over DirectBand, which has been created specifically for SPOT. DirectBand uses FM subcarrier technology that transmits data over the frequency modulation (FM) band of the radio frequency. In other words, SPOT technology will function in much the same way as enhanced car radios, which show an equipped radio station's call letters and in some cases, song or segment titles on the display, though Microsoft says the information displayed on the watch will be context relevant.

SPOT technology will be rolled out in 100 American cities across 50 states and "the largest cities in Canada," in the fall, according to a Microsoft press release.

Handheld battle heating up?

The handheld game segment has been dominated by Nintendo ever since it released its Game&Watch series almost 25 years ago and with subsequent releases like the Game Boy, Game Boy Color and more recently, the Game Boy Advance. Competitors have come along (Sega's GameGear, Nomad; NEC's TurboXpress; and Atari's Lynx to name a few) but were quickly toppled by the Japanese giant.

Nokia is hoping to buck this trend with the first entry in its mobile game deck line.

The N-Gage handheld is set for a February release, and concept photos suggest the unit will borrow heavily from the Game Boy Advance's horizontal layout, with a D-Pad to the left of the screen, shoulder buttons above and action buttons on the right. As the N-Gage will double as a cell phone, there are considerably more buttons to be worked into the front of the unit.

The game deck will run on the Symbian OS, the same operating system found in many Nokia phones, including the 9210 Communicator line.

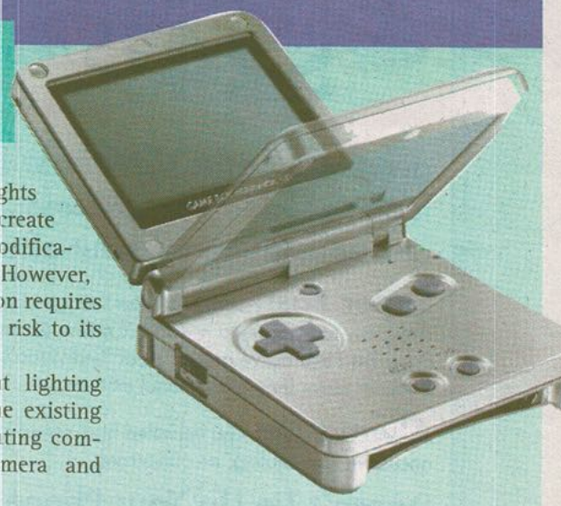
A partnership has been struck with Sega to develop games for the system, though no other game publishers have formally announced plans to support the system with software. Games will not be downloaded or bundled as they are on other cell phones, but rather distributed on memory cards, which will be sold at retail outlets.

Handheld battle heating up ... more?

Speaking of Game Boy Advance, Nintendo's newest portable game system, the Game Boy Advance SP, is set for a March 22 Canadian launch.

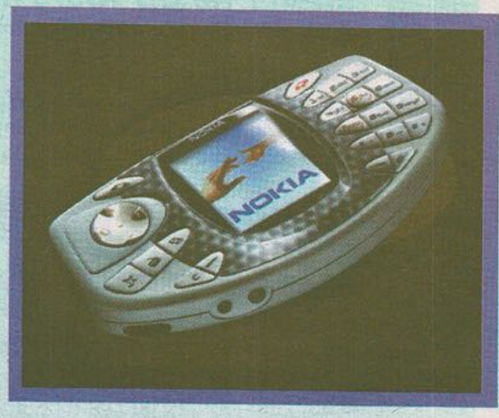
The GBA SP responds to gamers' complaints that the unlit TFT LCD screen on the existing GBA makes the system too difficult to play in anything but the best lighting conditions.

Until now, the only way to light the screen was with add-on lights that sit above the screen and create glare or with after market modifications, like the After Burner. However, installing the light modification requires that the GBA be opened, at a risk to its delicate innards.



The GBA SP uses a front lighting screen that sits on top of the existing LCD, rather than the backlighting commonly found in digital camera and handheld computer screens.

While the system specs and screen size are the same as the existing model GBA, the GBA SP seems to be reverting back to the days of the Game&Watch games of old. The SP opens up clamshell style and closes down to about a 3.25-inch square with a depth of just under one inch.



Not to be confused with PCP

Among the products with significant wow factor at CES in Las Vegas, many companies showed off their own versions of the Personal Video Player (PVP).

Most of the PVP devices on display followed the form factor of current hard drive-based MP3 players, with the notable addition of colour LCD displays of varying sizes.

Microsoft and Intel have teamed up to design the Media2Go, a PVP based around Intel's Xscale processors and Microsoft's Windows CE. Other manufacturers that have announced plans to create PVP products include Archos with its 40 GB Video AV340 with 3.8-inch LCD screen and slick form factor, and ViewSonic, with its tentatively titled ViewSonic PVP (let's hope they manage to come up with something a little bit more creative) which, when it launches in the fall, will have a 10 GB hard drive and a 3.5-inch, 320x240 pixel display.

Archos was already showing off its Video AV140 model, which also has a 40 GB hard drive and can encode MPEG-4 video at 30 frames per second on the fly, but which has a tiny 237x234 pixel LCD screen. ◆

PC Warehouse Direct™ Since 1989
A leading Canadian Supplier of Computer Hardware and so much more...
Choose from thousands of Brand Name products.

1-866-PC-WINXP
100% Recycled Electrons
Visit us online & $ave on our Current Specials today!
We Build the Finest Custom PC's in the Biz!
Visit our Website at: http://pcwarehousedirect.com

XPC 2.4GHz SS51G
• 2.4GHz Intel Pentium IV 533FSB 512K Cache
• 256MB Ultra-Fast CL2-DDR-RAM @ 333MHz
• 60GB ATA133 7200rpm HD & 52x24x52 CDRW
• Multimedia Keyboard & Optical Wheel Mouse
• Onboard Video+LAN+6-Channel-Audio+Firewire
• 4xAGP & 1xPCI Slot, plus numerous ports
• Compact Cube Design, Very Powerful and Quiet
• Overclocking BIOS
"Your Old Grey Box... ain't what it used to be"
15" LCD Monitor Included
Now Only $1688
Quantities Limited
Upgrades Add
2.53GHz +$89
2.66GHz +$189
80GB/120GB HD +$39/$119
512MB +$129
Complete Specs Online

i-Buddy DeskNote
Now with the world's fastest 5400rpm hard drive
ONLY AVAILABLE FROM PC Warehouse Direct™
• 1.8GHz Intel Pentium IV 400FSB 512K Cache
• SIS 650 Chipset with 533MB/s MuTIOL
• 256MB Ultra-Fast CL2-DDR-RAM @ 333MHz
• 20GB ATA-100 5400rpm Hard Drive
• 16x12x24 CDRW / 8x DVD Combo Drive
• 64MB DDR 4xAGP 256Bit 3D Graphics
• 15.1" 1024x768 TFT Screen
• Overclocking BIOS
Prices and products subject to change, usually better & cheaper
Now Only $1888
Quantities Limited
Upgrades Add
2.4GHz +$89
2.6GHz +$289
40GB HD +$89
512MB +$129
Complete Specs Online

Connectivity | Infrastructure Management | E-Business Solutions

The right connectivity solution for your business is all wrapped up.

Your business demands a high-performance infrastructure to run its mission-critical business applications. And AT&T Canada can provide it locally, nationally or globally. After all, we offer a full range of secure connectivity solutions – all backed by a 99.5% service uptime guarantee and a 30-day risk-free guarantee†. To determine the right connectivity solution for your business, consider the following:

Internet solutions						Data Network solutions				
Dial-up	ISDN	ADSL	T1	E10	OC3	Private Line	Transparent LAN Service (TLS)	Frame Relay	ATM	Business IP
• Do your employees require e-mail, Web browsing or Internet-based applications? • Does your business have a single office or multiple locations? • Does your business have a LAN? • How many users are on the LAN?						• Do your employees continuously need to share information such as inventory, CRM or financial data? • Does your business have multiple locations? • Are you deploying new business applications? • Are you centralizing your servers?				

Still not sure what your business requires? Contact an AT&T Canada Connectivity Specialist to assess your business' networking needs. Visit our Web Site or call today.

www.attcanada.ca/connect

1 866 511-7980

AT&T Canada | BOUNDLESS

Voice Data Internet E-Business

†Visit our Web site for complete details on AT&T Canada's service guarantees. Guarantee applies to Internet products only and is subject to change. Refunds will be granted based on set-up fees and/or monthly fee (as applicable), before taxes. Requests for a refund must be made in writing within 30 days following the installation of service. Terms and conditions apply. ®AT&T Corp. Used under licence. Please quote the following Promotion Code N378.

MDG

www.mdg.ca

CANADIAN OWNED
1991
12 YEARS
2003
CANADIAN OPERATED

VALUE 2400 SHOWN

VALUE 1700

INTEL® PENTIUM® 4 PROCESSOR AT 1.70 GHz

- 512MB SDRAM Memory, 80GB Value Hard Drive
- 12x8x32 CDRW-ROM Drive, 1.44MB Floppy Drive
- Value Keyboard, Value Mouse
- 32MB 4xAGP Video, 3D Audio PRO Sound
- Mid Tower with Power Supply
- Value Amplified Stereo Speakers
- 17" SVGA Monitor
- **Microsoft** Windows XP
- 6 Months Unlimited **AOL** Internet Service Included[3]
- **FREE** Digital Camera

$989

VALUE 2000

INTEL® PENTIUM® 4 PROCESSOR AT 2.0 GHz

- 512MB SDRAM Memory, 80GB Value Hard Drive
- 12x8x32 CDRW-ROM Drive, 1.44MB Floppy Drive
- Value Keyboard, Value Mouse
- 32MB 4xAGP Video
- 3D Audio PRO Sound
- Mid Tower with Power Supply
- Value Amplified Stereo Speakers
- 19" SVGA Monitor
- **Microsoft** Windows XP
- 6 Months Unlimited **AOL** Internet Service Included[3]
- **FREE** Rogers Hi-Speed Internet or Cogeco Internet on Cable offer, **FREE** Digital Camera

$1286

VALUE 2400

INTEL® PENTIUM® 4 PROCESSOR AT 2.40 GHz

- 512MB SDRAM Memory
- 80GB Value Hard Drive
- 12x8x32 CDRW-ROM Drive
- 1.44MB Floppy Drive
- Value Keyboard, Value Mouse
- 32MB 4xAGP Video
- 3D Audio PRO Sound
- Mid Tower with Power Supply
- Value Amplified Stereo Speakers
- 15" LCD Monitor
- **Microsoft** Windows XP
- 6 Months Unlimited **AOL** Internet Service Included[3]
- **FREE** Rogers Hi-Speed Internet or Cogeco Internet on Cable offer
- **FREE** Digital Camera

$1599

intel inside pentium 4

MDG Recommends Microsoft® Windows® XP
MDG PCs USE GENUINE MICROSOFT® WINDOWS®
www.microsoft.com/piracy/howtotell

HOURS:MONDAY - FRIDAY: 10:00am - 7:30pm,
SATURDAY: 10:00am - 6:00pm

Tax not included. Intel, the Intel inside logo and Pentium are registered trademarks and Celeron is a trademark of Intel Corporation. All products 3% cash discounted, prices subject to error and change without notice. Systems may not be exactly as shown. Promotional offers can not be combined and claimed at the same time. [2]Six months no pay or six monthly payments options on approved credit only. Regular price for Rogers Hi-Speed Internet is $44.95 a month, plus applicable taxes. Installation charges may apply. Some price restrictions apply including a $10 surcharge per month for non-cable subscribers. Rogers VIP rates do not apply for the duration of the rebate period. Offer subject to error and change at any time without notice. Not available in all areas. Certain restrictions may apply. ™Rogers is a trademark of Rogers Communications Inc. Used under license. Copyright © 1999 COGECO Cable Canada Inc. Cable bill must be in good standing to apply. Offer applies to new Rogers Hi-Speed Internet customers only and cannot be extended to existing customers . Cannot have been a Rogers Hi-Speed or Cogeco High-Speed customer within the 90 day period prior to purchasing a qualifying MDG system. Customer is responsible for the cable modem. [3]Communication charges may apply. Cannot be combined with any other offer. Offer ends January 31, 2003.Immediate pick-up may not be available in every case due to overwhelming responses, rain check available. Can not be combined with any other offer. Limited time and quantities offer. Store hours may vary.

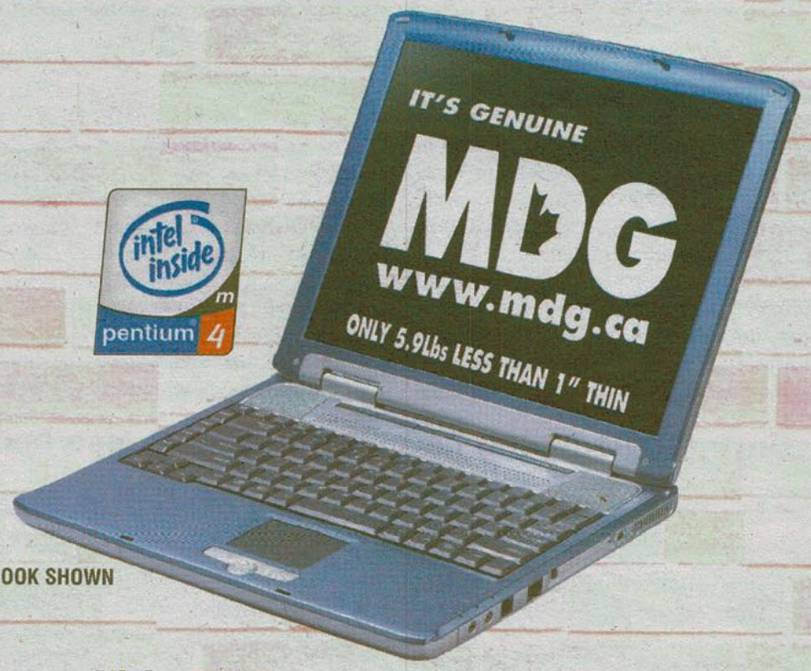
BE DIRECT BUY MDG

MDG's "Direct through stores" model cuts out middlemen and saves you a bundle. Personal service with a smile and a handshake, touch and feel demo models, no waiting - immediate pick-up, no hidden delivery fee. We manufacture it. We sell it. We deliver it. We support it and service it.

Direct Through Stores Advantage

Genuine MDG.

CANADIAN OWNED 1991 12 YEARS 2003 CANADIAN OPERATED



VISIONBOOK SHOWN

ValueBOOK

INTEL® PENTIUM® 4 PROCESSOR AT 1.70 GHz

- 14.1" XGA LCD Screen
- 256MB SDRAM Memory
- 40GB Value Hard Drive
- 8X DVD Drive
- 16MB 4xAGP Video
- 3D Audio PRO Sound
- Built-in Speakers
- Microsoft Windows XP
- 6 Months Unlimited AOL Internet Service Included[3]
- FREE Rogers Hi-Speed Internet or Cogeco Internet on Cable offer

$1599

HorizonBOOK

INTEL® PENTIUM® 4 PROCESSOR AT 2.40 GHz[0]

FREE UPGRADE TO HUGE 15" XGA TFT-LCD SCREEN

- 256MB DDR-SDRAM at 266MHz Memory
- 40GB Performance Hard Drive

FREE UPGRADE TO 24x Max. CD-RW/DVD COMBO DRIVE

- 64MB 4xAGP Video
- 4 USB, TV-Out
- 3D Audio PRO Sound
- Built-in Speakers
- **Microsoft** Windows XP
- 6 Months Unlimited **AOL** Internet Service Included[3]
- **FREE** Rogers Hi-Speed or Cogeco Internet on Cable offer

$1999 SIX MONTHLY PAYMENTS $333.17

INTERNET WITH AOL FOR SIX MONTHS UNLIMITED[3]

WITH ANY SYSTEM PURCHASE

VisionBOOK

MOBILE INTEL® PENTIUM® 4 PROCESSOR-M AT 1.70 GHZ

HUGE 15" XGA TFT-LCD SCREEN

- 256MB DDR-SDRAM at 266MHz Memory
- 40GB Performance Hard Drive

24x Max. CD-RW/DVD COMBO DRIVE

- 64MB 4xAGP Video
- 2 USB 2.0, TV-Out, IEEE 1394 Ports
- 3D Audio PRO Sound
- Built-in Speakers
- **Microsoft** Windows XP
- 6 Months Unlimited **AOL** Internet Service Included[3]
- **FREE** Rogers Hi-Speed or Cogeco Internet on Cable offer

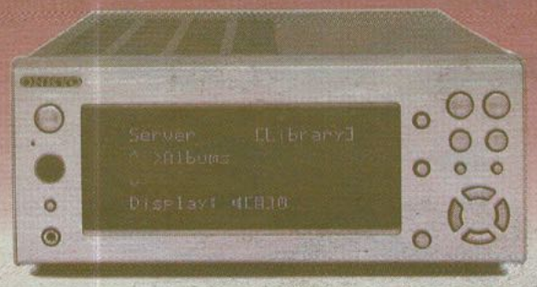
$2199 SIX MONTHLY PAYMENTS $366.50

CORPORATE & GOVERNMENT CLIENTS
905.829.3538
MONDAY TO FRIDAY 9:00AM - 5:00PM

MISSISSAUGA	SCARBOROUGH	TORONTO	NORTH YORK	ETOBICOKE	WHITBY	NEWMARKET	KITCHENER	ST.CATHARINES	HAMILTON	BURLINGTON	BRANTFORD
5659 McAdam Rd.	186 Shorting Rd.	700 Bay St.	2180 Steeles Av. W.	861 Brown's Line	1645 Dundas St. E.#2	17915 Leslie St.#15	1342 Weber St.E.	353 Lake St.	836 Upper James St.#111	3425 Harvester Rd.#110	415 Fairview Dr. #3
(905) 712-4151	(416) 299-7729	(416) 421-8010	(905) 669-8841	(416) 255-9343	(905) 432-8990	(905) 898-5847	(519) 895-8650	(905) 938-8100	(905) 318-8861	(905) 631-8499	(519) 759-2387

22581814

The PC emerges as a home entertainment server



By DAVID TANAKA

When it comes to home entertainment, convergence is alive and well, with the personal computer making its way to centre stage. The CES 2003 show, held in early January, is the show for consumer electronics, but on the show floor were many companies with names very familiar to us computer enthusiasts.

The reason is simple: all entertainment programming in the home is fast becoming digital. This includes purchased forms such as music and movies, subscription-based forms such as digital cable and HDTV and home-grown productions such as digital video, digital photos and music.

Once programming becomes digital, it also becomes data, and what better device to handle any and all forms of digital data than the personal computer.

Once programming becomes digital, it also becomes data, and what better device to handle any and all forms of digital data than the personal computer. As Craig Barrett, CEO of Intel, said in his CES keynote address, "The PC in my mind is the most versatile piece of equipment in the house; it is the most interactive piece of equipment in the house. It can handle all of the rich data, and it can also create that rich data."

Barrett was alluding to the personal computer as the ultimate recording and playback device. But he also talked about the third flank of convergence: The Internet. It's often been said that computers, communications and content form the "three Cs of convergence" and from this point of view, the computer is one of the primary enablers of digital home entertainment.

The create side

TC! readers already know some of the story of personal digital creation, which goes from simple roll-your-own *MP3* compilations of music ripped from commercial sources, to the creation of professional-quality home movies and slide shows captured with inexpensive camcorders and still cameras and edited on a Windows PC or Macintosh, or the creation of pro-quality music with inexpensive software.

At Macworld, which took place the same week as CES, Apple announced *iLife*, an integrated suite of media production applications. Apple rewrote *iPhoto*, *iMovie*, *iTunes* and *iDVD* so that the separate applications would work better together and named the bundle *iLife*. In his keynote address, Apple CEO Steve Jobs said *iLife* is to digital media productivity what *Microsoft Office* is to integrated office productivity. "It's going to do wonders for our new digital lifestyle," said Jobs.

Interestingly, at CES, ScreenBlast, a division of Sony Pictures Digital Entertainment Inc., was showing *Movie Studio* and *Music Studio*, which promise the same kind of easy media production for Windows users that *iLife* does for Mac users. The slogan for the two Sony applications is "dream it, drag it, drop it, done."

An IP address for your stereo

Coming from the consumer electronics side, some manufacturers are making it simpler for their CE equipment to communicate with the computer. One such company is audio equipment maker Onkyo, which has added an Ethernet port to some of its receivers, including the high-end TX-NR900 that sells for US$1,500 and the budget-priced NC500 (US$400 MSRP). Both come with *Net-Tune* PC software that turns the receiver into a network client.

From a *Net-Tune* enabled receiver, a consumer would be able to access and play the MP3 music collections residing on the hard drives of computers on the local area network or play Internet radio stations if the home network had an always-on connection through DSL or cable modem. Onkyo says that up to 12 *Net-Tune* receivers can operate on one network. The scenario this portrays is that different family members could listen to their own play lists from different rooms on their own Onkyo receivers, but have a centralized music library on the PC that everyone could access. Perhaps the biggest limitation to this kind of product, at least in the short term, is that not many homes have Ethernet cabling installed to every room.

A PC for your stereo cabinet

From the PC side of the industry comes the vision of the PC either eliminating or at least co-existing with traditional home entertainment equipment. Microsoft is one company that has tried to push this vision, and its latest foray into this space is Windows XP Media Center Edition. This special version of Windows XP, available only to equipment makers, allows them to integrate consumer-electronics types of features (including a TV tuner and a remote control unit) that will be supported in Windows. Hewlett-Packard Canada was the first to offer a Media Center PC to Canadian consumers, but it still looks like a tower PC.

On display in Microsoft's booth were designs from other makers that try to stylize the beige box. One of the coolest designs was from Richmond B.C.-based Tagar Systems, a subsidiary of McKinnon Micro Distributing. Tagar's high-end DeZinor doesn't even look like a PC: With its horizontal case and black, brushed aluminum faceplate, it could easily be mistaken for a piece of stereo equipment. But behind the front panel is a 2.53 GHz Pentium 4 processor, 500 MB of RAM, 120 GB hard drive, a six-in-one memory card reader, DVD-RW recorder and USB 2.0 and FireWire ports. Tagar says in a news release that its media center PCs will be available across Canada in Radio Shack and The Brick outlets.

Software to add additional functionality to the media center PC is also starting to trickle out. Sonic Solutions of Novato, Calif. (www.sonic.com) announced *Sonic PrimeTime* at CES, which allows the consumer to burn a TV program to a DVD disc with one touch of the remote. SnapStream Media (www.snapstream.com) announced similar functionality in its *Personal Video Station 3.0* at Comdex in November.

In the middle, bridges

Between the PC trying to be a home entertainment system at the one extreme and stereo receivers with IP addresses at the other, is a lively dance of products trying to bridge the two worlds. One example is the AudioTron AT200, which Voyetra Turtle Beach Inc. announced at the show. The AT200 looks like a home stereo component. It has analogue and digital output connectors that work with receivers and home theatre audio equipment, plus network connectors that plug into the PC. The device has an Ethernet port plus a phone jack, and will communicate with the PC using either Ethernet or existing phone wiring using HPNA 2.0.

Another example is cd3o, a San Diego, Calif. company that introduced a line of network MP3 players, which bridge the PC and home stereo with both network and stereo connections. The c200 and c300 models include an 802.11b wireless network interface. ◆

AeI internet
since 1993

are you connected?

or well connected?

Information
www.aei.ca
info@aei.ca

Call us now !

416-640-1611
1-877-305-4155

Residential

HighSpeed Access

Always connected
10hrs dialup access
E-mail account 20MB
50,000 news groups

HighSpeed
1.2 Mbps *$29.95 /m*

Ultra HighSpeed
3.5 Mbps $49.95 /m

Dialup Access

56K V.92 dialup
E-mail account 20MB
50,000 news groups
No Busy Signals

10hrs	$4.95 /m	($49.50 /yr)
40hrs	$9.95 /m	($99.50 /yr)
100hrs	$14.95 /m	($149.50 /yr)
Unlimited*	$22.95 /m	($229.50 /yr)

* Based on Intermittent usage

Business

HighSpeed Access

Always connected
20hrs dialup access
5 E-mail accounts
50,000 news groups

HighSpeed
1.5 Mbps $69.95 /m

Ultra HighSpeed
3.5 Mbps $99.95 /m

HighSpeed Package

Always connected
Modem / Router with Firewall
Web hosting 40MB
20 E-mail accounts
100 hrs dialup access

HighSpeed
1.5 Mbps $99.95 /m

Ultra HighSpeed
3.5 Mbps $129.95 /m

Web Hosting

Virtual Domain

Intro
$29.95 /m ($299.50 /yr)
10MB of web space
5 E-mail accounts

Intermediate
$39.95 /m ($399.50 /yr)
40MB of web space
20 E-mail accounts
Frontpage, ASP, PHP, SQL

Expert
$59.95 /m ($599.50 /yr)
100MB of web space
50 E-mail accounts
Frontpage, ASP, PHP, SQL

E-mail only
$9.95 /m ($99.50 /yr)
5 E-mail accounts
(yourname@domain.com)

22575414

By MARA GULENS

Frivolous, fun and just better

Check out the "A Day in the Life" video at Microsoft.com (www.microsoft.com/windowsxp/mediacenter/default.asp). It's supposed to give you a feel for Microsoft's new Media PC, which it does. But it also makes you feel like you're watching an ad for Ikea, because so much of this new piece of technology has to do with the concept of space and home.

If you're a college kid in need of every kind of media imaginable, then run out and purchase the HP Media Center PC with Windows XP Media Center Edition now. If you already own a TV, PC, DVD or CD player, you probably won't be buying one of these goodies in the near future, but it's something worth dreaming about until you do.

But back to the video. Four college kids get together, watch movies, make videos and dance to music – all in the confines of one very small room. And that's precisely who the HP Media Center PC with Windows XP Media Center Edition is intended for, students and people with limited space.

The fact is, this particular piece of technology is so appealing that it will blend into your life in no time, and become impossible to part with. I can honestly say that when my review time is up, I'll have a hard time shipping this baby away.

Whatcha get

The HP Media Center PC with Windows XP Media Center Edition (call it Media Center for short) is a complete entertainment centre. It's a PC together with a CD player, DVD player/recorder, flash card and memory slots, TV remote and of course, Microsoft Windows XP Media Center software. For the price you also get two external speakers, but the very necessary LCD monitor and extra sub-woofer are additional (though you can connect to the TV or monitor you already own).

The problem is, it still looks and feels like a PC, so for someone like me, placement remains an issue. I like having it in the family room for the TV, video, DV and pictures aspect, but there's really no room to place a desk in the TV area, and that's what you need for standard computing. Moreover, it's a problem if one person wants to play a game and another wants to watch TV at the same time.

While the best thing about the package is the crash-safe remote, which lets you switch between My TV, My Music, My Pictures, My Videos, Play DVD and Settings with ease, the designers have forgotten to fashion in a cordless mouse and keyboard, meaning any standard PC activity has to be done up close and personal – which in my case means crouching in front of a small monitor stand. Not exactly ergonomically beneficial, and certainly nothing close to what is recommended in the user's guide.

The other thing keeping me from rushing out to purchase this is the price. If I needed a new TV or a DVD recorder, especially a flat screen TV, then I would consider this item: Then the price starts to even out. But since I already own several computers, two CD players and a television that works, shelling out this much cash for something that makes it all just better and more fun would really be frivolous.

Although I'm not a big TV fan, one of the top things the Media Center does is improve the TV viewing experience. With cable and a broadband Internet connection, you can download the TV guide (do it once and you're set), search for shows and press "record" to tape favourites. No messing with VCR programming, no money spent on VHS cassettes, and once you watch a show, just press delete to remove it from the hard drive.

For the time being, the Media PC is for people who work and play in one room. But if Microsoft and HP can figure out how to get the product out of the well-to-do student niche and come up with a solution for the rest of us, you can bet I'll be the first to say "aye." ◆

more INFO

HP Media Center PC (Pentium 4; 2.5 GHz with keyboard, mouse, remote, speakers and Microsoft Windows XP Media Center Edition) $2,599 (monitor not included)
Hewlett-Packard
h30040.www3.hp.com/mediacentrepc/index.php

CanadaSys(Retail Division)
EverChannel(Wholesale)
Mon -- Fri :11:30 -- 7:30; Sat & Sun :10 -- 5

North York: Lawrence / Dufferin
789 Lawrence West
Tel : (416) 781-7738
Tuesday: Closed

Scarborough: Lawrence / Brimley
2931 Lawrence East
Tel : (416) 269-7738
Wednesday: Closed

Richmond Hill: Leslie / Hwy 7 E.
#103, 550 Hwy 7 East
Tel : (905) 709-5799
Wednesday: Closed

Visit www.CanadaSys.com for more saving & options, Dealers Welcome

Duron 1.3G $449
AMD XP 1700 $479
AMD XP 2000 $519
ECS K7S5A MainBoard
128M DDR/256M SD(+$10)
64M AGP Video Card
30G 7200r HD/1.44M FD
ATX P4 Case / CDROM
Sound & Lan on board
56K Modem / Scroll mouse
Keyboard / 180w speaker

AMD XP 1700 $509
AMD XP 2000 $549
AMD XP 2100 $569
Asus A7V266CA Board
256M **DDR** RAM
64M AGP Video Card
30G 7200r HD/ 1.44M FD
ATX P4 Case / CDROM
Sound on board / Modem
KeyBoard / Scroll mouse
180W Speaker

Intel P4 1.7G $569
Intel P4 2.0G $629
Intel P4 2.4G $679
ECS P4VXASD2+ Board
128M DDR/256M SD(+$10)
64M AGP Video Card
30G 7200r HD/1.44M FD
ATX P4 Case / CDROM
Sound & Lan on board
56K Modem / Scroll mouse
Keyboard / 180w speaker

Special
Intel P4 2.0G $709
Intel P4 2.4G $759
Aopen AX4TII Mainboard
256M **RD** Memory PC800
64M AGP Video Card
60G 7200r HD/1.44M FD
ATX P4 Case / CDROM
Sound on board/ Modem
Keyboard / Scroll mouse
Altec Lansing speaker

Intel P4 1.7G $599
Intel P4 2.0G $659
Intel P4 2.4G $709
Asus P4SE Mainboard
128M DDR Memory
64M AGP Video Card
30G 7200r HD/1.44M FD
ATX P4 Case / CDROM
Sound & Lan on board
56K Modem / Scroll mouse
Keyboard / 180w speaker

Intel P4 2.0G $779
P4 2.4G(533) $829
P4 2.5G(533) $899
Asus P4S533 Mainboard
256M **DDR333** Memory
64M AGP Video Card
60G 7200r HD/1.44M FD
ATX P4 Case / CDROM
Sound on board / Modem
KeyBoard / Scroll mouse
Altec Lansing Speaker

Intel P4 2.0G $899
P4 2.4G(533) $949
P4 2.5G(533) $1019
Asus P4T533C Mainboard
256M **RD** Memory Pc800
64M AGP Video Card
60G 7200r HD/1.44M FD
ATX P4 Case / CDROM
Sound on board / Modem
KeyBoard / Scroll mouse
Altec Lansing Speaker

ECS Laptops

A900 $969
14.1" TFT /128M/ DVD
10G HD / Lan / Modem

AMD Xp1700 $1099
AMD Xp2000 $1149
14.1" TFT / 256M DDR
20G HD / Lan / Modem
DVD / USB .....

Intel P4-1.7G $1279
Intel P4-2.0G $1339
Intel P4-2.4G $1389
14" TFT / 20G HD / DVD
256M DDR / Modem /
Lan / USB / .....
(Upgrade Cost:
TFT 14" to 15": + $80;
DVD to CD-Writer/DVD
Combo Drive: + $80)

Accessories
ECS A900 Battery.....$99
ECS A928 Battery...$169
External Floppy.....$59
USB External Hard Drive
10G / 20G....$189/229
Laptop Hard Drive
20G / 40G..$139 / $209
Laptop Carrying Bag.$49

Monitors
17" LG 700S.....$175
17" Samsung 753DF....$199
19" Samsung 955DF....$349
19" KDS vs -190.....$249
19" KDS True Flat $299
17" Viewsonic E70F.....$235
17" Viewsonic E70FB..$239
19" Viewsonic E90F.....$355
19" Viewsonic E90FB..$359
15" Samsung LCD.....$449
15" Viewsonic LCD.....$479

Network Related
Generic 10/100 NIC.....$10
D-Link 10/100 NIC.....$18
PCMCIA Network Card.$40
USB External NIC.....$30
5 - port hub 10/100.....$35
D-Link 4-port Router
DI-604.....$79
DI-704 w/PrinterServer..$95

Video Cards
64M AGP Video Card.....$45
Geforce 2 mx400 64M.....$55
(with TV out.....$65)
ATI Radeon
7000 64M sd / ddr.....$59/69
7500 64M sd / ddr.....$79/89
9000Pro 128M (OEM)....$159
9000Pro 128M (Retail)..$209
ATI All-in-Wonder 64M
Radeon 7500(Retail).....$199
Radeon8500DV(Retail).$289
Asus Geforce 4
64M mx420 / 440..$109 /129
Ti4200 128M(8xAGP)...$269
MSI Geforce 4
mx440 64M ddr TVout....$99
Ti4200 128M (8xAGP)..$279
Ti4600 128M VIVO.....$399

Fax Modem(56k/v90)
USR win / Gneric.....$30/19

DVD & CDRWs
MSI / LG 48X CDRW.....$79
LG 32xCDRW/16xDVD..$115
LG / Sony 16XDVD.....$59
LG DVD / CD Burner.....$399
100pcs CD Spindle.....$39

Hard Drives (7200r)
30 / 60 / 80G....$109/135/159
80 / 120G (8M).....$185/279

Mother Boards
AMD CPUs:
FIC Az11 (SD RAM).....$49
ECS K7S5A (sd/ddr).....$85
Asus A7V266C(ddr).....$95
Asus A7V333X(ddr).....$139
Intel CPUs:
Aopen AXT4II(RD).....$69
ECS P4VXASD2(sd/ddr)$79
Asus P4SE(ddr).....$109
Asus P4S533(ddr).....$159
Asus P4T533C(RD).....$249

Logitech Devices
QuickCam Express **$29.99**

Cordless Mouse & Keyboard Combo **$59**

Samsung Digital Camera 3.2M Pixels
Digimax 340 **$419**

Upgrade Combo
1. FIC Az11 Board
+ 128M SDRAM
+ Duron 1300
$159
2. ECS P4VXASD2
+ 128M SDRAM
+ CPU
P4-1.7G **$329**
or P4- 2.0G **$389**
3. Asus P4T Board
+ 256M RDRAM
P4-1.5G **$339**
4. Aopen AX4TII Board
+ 256M RDRAM
P4-1.7G **$379**

Prices already 4% cash discounted & subject to change without notice

22562814

Echo Means Business.

Since 1995 Echo Online has provided thousands of GTA Businesses, both large and small, with the tools and plans to enable them to fulfill their Internet related goals. We offer competitively priced plans, a state-of-the-art Network with lots of bandwidth, knowledgeable Corporate Account Representatives, and some unbeatable monthly specials! Here's just a sample of our account options:

Corporate High Speed DSL Plans

PPPoE DSL Plans	Static IP	Unlimited Access	Transfers /Month**	Virtual Host	E-Mail Addresses	Web Space	Dial-Up Access	Modem Included	Set-Up Fees	Monthly Fees
Business Basic 1.5	N	Y	10GB	N	10	N/A	30 Hr/mth	N	N/A	$59.95
Business Bronze 1.5	Y	Y	20GB	Y	10	100MB	30 Hr/mth	N	$150.00	$99.95
Business Silver 1.5	Y/5	Y	25GB	Y	10	100MB	50 Hr/mth	N	$150.00	$149.95
Business Gold 1.5	Y	Y	50GB	Y	10	100MB	100 Hr/mth	Router	$150.00	$199.95
Business 3Mb	Y	Y	20GB	Y	10	100MB	30 Hr/mth	N	$150.00	$169.95

For a limited time get the Business 3Mb PPPoE service for HALF price!

VLAN DSL Plans	Static IP	Unlimited Access	Transfers /Month**	Virtual Host	E-Mail Addresses	Web Space	Dial-Up Access	Modem Included	Set-Up Fees	Monthly Fees
Business Basic 3Mb	Y	Y	15GB	N	5	N/A	30 Hr/mth	Y	N/A	$224.95
usiness Bronze 3Mb	Y	Y	20GB	Y	10	100MB	30 Hr/mth	Y	$275.00	$249.95
Business Silver 3Mb	Y/5	Y	25GB	Y	40	100MB	50 Hr/mth	Y	$275.00	$299.99
Business Gold 3Mb	Y/5	Y	50GB	Y	50	100MB	100 Hr/mth	Router	$275.00	$349.95

Virtual Hosting Plans

Virtual Hosting	Platform	Web Space	POP 3 E-Mail	Alias	Auto Responder	PERL	PHP	ASP/VB Script	FrontPage	SSI	SSL	MS Access	MY SQL	Set-Up Fee	Monthly Rate	Yearly Rate
Plan 1	UNIX	5 Mb	2	1	1	UNIX/NT	UNIX	N/A	Included	Included	Extra	Included	Extra	$25.00	$13.49	$8.95/mo.
Plan 2	UNIX/NT	20 Mb	10	10	2	UNIX/NT	UNIX	NT	UNIX/NT	UNIX/NT	Extra	UNIX/NT	Extra	$30.00	$17.49	$11.94/mo.
Plan 3	UNIX/NT	50 Mb	20	20	3	UNIX/NT	UNIX	NT	UNIX/NT	UNIX/NT	Extra	UNIX/NT	Extra	$40.00	$22.49	$14.95/mo.
Plan 4	UNIX/NT	100 Mb	50	50	10	UNIX/NT	UNIX	NT	UNIX/NT	UNIX/NT	UNIX/NT	UNIX/NT	50 Mb	$75.00	$75.00	$50.00/mo.
Plan 5	UNIX/NT	200 Mb	75	75	25	UNIX/NT	UNIX	NT	UNIX/NT	UNIX/NT	UNIX/NT	UNIX/NT	75 Mb	$115.00	$115.00	$75.00/mo.
Plan 6	UNIX/NT	500 Mb	100	100	50	UNIX/NT	UNIX	NT	UNIX/NT	UNIX/NT	UNIX/NT	UNIX/NT	100 Mb	$150.00	$150.00	$100.00/mo.

We also offer the best deals on Server Co-Locations, T1, ISDN and Dial-Up Access! Please call our Corporate Sales Department for details.

ECHO OnLine

416-385-0459

http://www.eol.ca

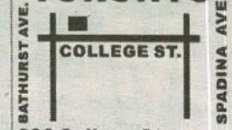
Serving the GTA since 1995!

2600 Skymark Ave., Building 9 Suite 201, Mississauga, Ontario L4W 5B2

(C) 2002 Echo Online Internet Inc. All Rights Reserved. Prices subject to change without notice. Taxes NOT included.

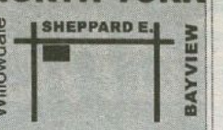
ICCT

TORONTO



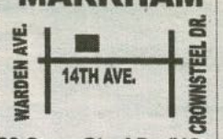
396 College St.
TEL: 416-921-0702
FAX: 416-921-9938
MON-FRI:10:30-19:30
SAT: 9:30-18:00
SUN: 11:00-17:00

NORTH YORK



201 Sheppard Ave. E.
TEL: 416-224-5553
FAX: 416-224-2678
MON-FRI: 11:00-20:00
SAT: 9:30-18:00
SUN: 11:00-17:00.

MARKHAM



20 CrownSteel Dr. #16
TEL:905-513-9935
FAX:905-513-8717
MON-FRI: 10:30-19:30
SAT:9:30-18:00
SUN:11:00-17:00

Http://www.icct.ca & Toll free: 1-866-549-ICCT(4228)

OFFICE STAR $379

INTEL CELERON @ 1.3A GHZ
MSI MS-6368 MOTHERBOARD
128MB SD-RAM PC-133
52X MAX CD-ROM
3D GRAPHIC CONTROLLER
20GB HDD ATA-100
1.44 FLOPPY DRIVE
ATX MID TOWER WITH FRONT USB & 350W POWER
AC'97 SOUND CONTROLLER
10/100MB NETWORK CARD
WINDOWS KEYBOARD
ELITECH 2 BUTTON MOUSE
ELITECH EB693S SPEAKER

RECOMMENDED UPGRADES:

17in SAMSUNG/SAMTRON 76V (16in V.I.S)	+$165
256MB PC-133	+$21
250MB ZIP INT.	+$109
48X12X48 CD-RW	+$39

TORNATO $487

INTEL Celeron @ 1.7 GHZ (S478)
P4BGL-VM-L M/B
128MB DDR PC-2100
INTEL EXTREME GRAPHIC
48X10X48 CD-RW
20GB HDD ATA-100
1.44 FLOPPY DRIVE
ATX MID TOWER WITH FRONT USB & 350W POWER
10/100MB NETWORK CARD
16BIT SOUND CARD
WINDOWS KEYBOARD
ELITECH 2 BUTTON MOUSE
ELITHCH EB-693 SPEAKER

RECOMMENDED UPGRADES:

256MB DDR PC-2100	+$33
40GB MAXTOR HDD @ 7200RPM ATA-133	+$31
LG 32X10X40 CD-RW & 16X DVD-ROM COMBO	+$49

VALUE PLUS $659

INTEL P4 1.8A GHZ
GIGABYTE 8IE533 (i845E)
256MB PC-2100 DDR-RAM
NVIDIA GF2 MX400 64MB DDR
20GB HDD ATA100
1.44 FLOPPY DRIVE
52X MAX CD-ROM
ATX MID TOWER WITH FRONT USB & 350W POWER
16BIT SOUND CARD(ONBOARD)
WINDOWS KEYBOARD
ELITECH MOUSE WITH WHEEL
ELITECH EB693S HIFI SPEAKER

RECOMMENDED UPGRADES:

17in SAMSUNG 753DF .20h & FLAT SCREEN	+$197
16X LG DVD-ROM	+$29
40GB MAXTOR HDD AT 7200RPM & ATA-133	+$29

SUPER PLAY $619

AMD ATHLON XP 1800
MSI KT3 ULTRA(VIA KT333)
256MB PC-2100 DDR-RAM
XFX GF4 MX 64MB DDR
40GB HDD ATA100
1.44 FLOPPY DRIVE
52X MAX CD-ROM
10/100MB NETWORK CARD
ATX MID TOWER WITH FRONT USB & 350W POWER
16BIT SOUND CARD
WINDOWS KEYBOARD
ELITECH MOUSE WITH WHEEL
EB-600W SPK W/SUBOOFER

RECOMMENDED UPGRADES:

256MB DDR333	+$19
40GB WD HDD @ 7200RPM 8MB CACHE	+$19
48X12X48 CD-REWRITER & SOFTWARE	+$39

COOL VALUE $659

INTEL P4 1.7 GHZ
GIGABYTE 8PE667 (i845PE)
256MB DDR PC-2100
NVIDIA GF2 MX400 64MB DDR
20GB HDD ATA-100
1.44 FLOPPY DRIVE
ATX MID TOWER WITH FRONT USB & 350W POWER
52X MAX CD-ROM
16BIT SOUND CARD (ON BOARD)
10/100MB PCI NETWORK CARD
WINDOWS KEYBOARD
ELITECH MOUSE WITH WHEEL
600W SPK W/SUBWOOFER

RECOMMENDED UPGRADES:

256MB DDR333	+$19
40GB MAXTOR HDD @ 7200RPM ATA-133	+$31
XFX Gf4 Mx440 64MB DDR WITH TV-OUT	+$39

GRAND P4 $1529

INTEL P4 2.53GHZ FSB533
MSI 648MAX 8XAGP
512MB DDR-266 & 40GB 7200RPM
XFX GF4 MX440 64MB AGP8X
350W ATX MID TOWER FRONT USB
1.44 FDD & 16X DVD-ROM
10/100 PCI NIC
15 LCD MONITOR
16BIT PCI S/C (ON BOARD)
K/B & OPTICAL MOUSE& 600W SPK W/SUB

RECOMMENDED UPGRADES:

17in SAMSUNG LCD TFT	+$241
XFX Gf4 Ti4200 128MB AGP 8X	+$121

POWER P4 $1079

INTEL P4 2.4B GHZ FSB 533
GIGABYTE 8PE667 (I845PE)
256MB DDR333
XFX GF4 MX440 64MB DDR
40GB HDD ATA-100 & 1.44FDD
350W ATX MID TOWER FRONT USB
48X12X48 CD-RW
AC'97 SOUND & 10/100 NIC
17 FLAT SCREEN MONITOR
K/B & SCROLL MOUSE & 600W SPK W/SUB

RECOMMENDED UPGRADES:

15in SAMSUNG LCD	+$241
52X24X52 LITEON CD-RW	+$39
512MB DDR PC-2700	+$87

GRAND XP $1509

AMD ATHLON XP 2400+
MSI KT4VL (AGP8X DDR400)
512MB DDR333
XFX GF4 MX440 64MB AGP8X
40GB 7200RPM ATA-100
1.44 FDD & 6 CHANNEL S/C (ON BOARD)
ATX MID TOWER FRONT USB 350W
48X12X48 CD-RW & 16X DVD
10/100 NIC & 15 LCD MONITER
K/B & OPTICAL MOUSE & EB-600 SPK

RECOMMENDED UPGRADES:

17in SAMSUNG LCD TFT	+$239
XFX Gf4 Ti4200 128MB AGP8X	+$121
MSI K7N2 nFORCE2 AGP8X DDR400	+$155

Boxing !!! Can not Miss !!!

BRAMPTON

MAIN ST. / BARTLEY BULL PKWY. / STEELES AVE.

1 BARTLEY BULL PKWY. #24
TEL: 905-460-1339
FAX: 905-460-0464
MON-FRI: 10:30-19:30
SAT: 9:30-18:00
SUN: 11:00-17:00

Beat Any Advertised Price

LIMITED OFFER - LOWER THAN EVER

LG 52X24X52 CD-REWRITER WAS ~~$99.99~~
NOW ONLY $49.99

ALTECLANSING PC MUSIC AVS 300 WAS ~~$69.99~~
NEW ONLY $31.99

LIMITED ONE ITEM PER CUSTOMER, QUANTITIES LIMITED!!!

SAMSUNG SPECIAL

15 150S LCD TFT SILVER	$417
15 151S LCD TFT SILVER	$437
17 SAMTRON 76V (16 V.I.S)	$167
19 955DF FLAT SCREEN	$339
ML1440 LASER PRINTER 8MB CACHE	$299

PURCHASE MADE WITH OUR PC SYSTEMS ONLY. LIMITED ONE PER CUSTOMER. OFFER VALID JAN25TH - FEB 10TH

ABIT / ASUS THE MOTHERBOARD STORE

MSI GIGABYTE

SOCKET 478 (INTEL P4 CPU)

ASUS P4T 533-C-L	$241
ASUS P4T533 (32BIT RAM-BUS)	$251
ASUS P4B533-E W/AUDIO/LAN/RAID	$219
ASUS P4B533	$167
ASUS P4B533VM	$141
ASUS P4B GL-VM-L	$131
ASUS P4S-533 WA	$145
ASUS P4S-533-MX (DDR/SD-RAM, LAN)	$125
ASUS P4GE-VL i845GE/DDR333/HT	**$215**
ASUS P4S8X AGP8X	**$189**
ASUS P4PE FSB 533 DDR-333/DELUX	**$179/ $221**
ASUS P4G8X DELUXE (AGP8X, 1394)	**$299**
ABIT BE7 / RAID i845PE DDR-333	$165/$191
ABIT BD7II / RAID 533FSB DDR	$139/$163
ABIT IT7-MAX2 FSB533 1394/USB2.0	$269
ABIT IT7-MAX2 i845PE V2 1394/SATA/RAID	**$259**
MSI E7205 MASTER-L 8XAGP GIGALAN	**$299**
MSI 845PE MAX2-FISR (LAN/1394/RAID)	**$237**
MSI 648MAX-L (Ms6585 8XAGP)	$131
MSI GNB MAX-FISR (E7205) 1394/GIGALAN	**$359**
MSI 845E MAX FSB533	**$129**
EPOX 4BEAV FSB533	$145
EPOX 4PEA+ (i845PE/IDE RAID/LAN)	$229
EPOX 4SDA5+ (8XAGP/DDR333/RAID)	$205
EPOX 4GEAE i845GE/DDR333/HT	**$173**
GIGABYTE GA-8SR533P (533FSB, DDR333)	$101
GIGABYTE GA8IE533	**$119**
GIGABYTE GA-8PE667 (i845PE)	**$129**
GIGABYTE GA-8PE667 ULTRA (IDE RAID)	$193
GIGABYTE GA-8PE667 ULTRA2 (FULL)	$215
GIGABYTE GA-81HXP RAM-BUS PC-1066	$253
GIGABYTE GA-8INXP (E7205) AGP8X/SATA	$325

SOCKET A (AMD CPU)

ASUS A7S 333	**$104**
ASUS A7V8X (VIA KT400/AGP8X)	$159
ASUS A7V8X-RAID	$209
ASUS A7N8X DELUX (nFORCE2 AGP8X)	**$213**
ASUS A7N8X PURE	**$179**
ABIT KD7 (VIA KT400/AGP8X)	**$145**
ABIT KD7-E (VIA KT333 USB2.0)	**$125**
ABIT KD7-G 8XAGP/SATA/GIGALAN	$219
ABIT KX7-333 VIA Kt333	**$127**
ABIT KD7-S (8XAGP DDR400 USB2.0 SATA)	$189
ABIT AT7 MAX2 (VIA Kt400 8XAGP)	$259
ABIT Nf7 NFORCE2 AGP8X/DDR400/6.1	**$169**
ABIT NF7-S nFORCE2	**$189**
GIGABYTE GA-7VAX (VIA Kt400)	**$123**
GIGABYTE GA-7VAXP (VIA Kt400 W/RAID)	$159
GIGABYTE GA-7VAXP ULTRA (1394/SATA)	**$174**
MSI K7N2G-L nFORCE2/AGP8X/DDR400	**$189**
MSI KT4VL (VIA KT400 8XAGP DDR400)	**$123**
MSI KT4 ULTRA (VIA KT400 8X AGP)	**$151**
MSI KT4 ULTRA-SR (SERIAL ATA)	$185
MSI KT3 ULTRA-2 DDR333 (VIA Kt333)	**$113**
MSI K7N2 NFORCE2 AGP8X DDR400 LAN	$155
EPOX EP-8K9A2+ (VIA KT400 AGP8X)	$209
EPOX EP-8K9A (VIA KT400 AGP8X)	$141
EPOX EP-8RDA+ (Nforce2 DDR400 8XAGP)	$179

INTEL INSIDE OR AMD INSIDE
ICCT IS ALWAYS ON YOUR SIDE

SERVER BOARD

ASUS A7M266-DL	$329
TYAN S2466N TIGER MPX DUAL AMD MP	$339
TYAN S2469 TIGER MP DUAL AMD MP	$269
TYAN S2469 K7X PRO DUAL AMD MP	$599
TYAN S2468 K7X DUAL AMD MP	$589
TYAN S2462UNG THUNDER K7 SCSI	$679
TYAN S2665 THUNDER i7505 DUAL XEON	$699
TYAN S2721-S8344 THUNDER i7501 PRO	$819
TYAN S2721 THUNDER i7500 PRO XEON	$699
TYAN S2720 THUNDER i7500 DUAL XEON	$629
TYAN S2603 THUNDER i860 DUAL XEON	$1109

MAX INTEL PERFORMANCE

INTEL DESKTOP BOARD:

D845GEBV2 i845GE 533FSB/DDR333/HT	$169
D845PESV i845PE 533FSB/DDR333/HT	$159
D845PEBT2 i845PE SATA/HT	$199

ALL INTEL DESKTOP BOARD ARE COME WITH AUDIO AND INTEL CHIP SET NETWORK CARD.

INTEL SERVER BOARD:

S845WDI-E $299
FOR PENTIUM4, FSB533, DUAL INTEL LAN, ATA100 RAID, ATI RAGE XL VIDEO, 3X32BIT PCI

SE7500CW2 $599
DUAL XEON, DUAL CHANNEL DDR, DUAL INTEL LAN, ATA RAID, ATI RAGE XL VIDEO, ECC-RAM

SE7500WV2 $999
DUAL XEON, HT, DUAL GIGA LAN, OPTIONAL DUAL CHANNEL ULTRA 160 SCSI OR ATA-100

SHG2 $1079
DUAL XEON, DUAL CHANNEL ULTRA 160 SCSI

SOFTWARE:

USE MICROSOFT WINDOWS XP AS YOUR OS AND ENJOY THE LATEST FEATURES.

WINDOWS XP HOME EDITION	$139
WINDOWS XP PROFESSIONAL EDITION	$229
OFFICE XP SMALL BUSINESS EDITION	$299
OFFICE XP PROFESSIONAL EDITION	$479
NORTON ANTIVIRUS 2003	$49.99

SOFTWARE PURCHASE MADE WITH NEW PC SYSTEM ONLY, NO REFUND OR EXCHANGE POLICY ON ANY SOFTWARE.

PINTERS:

HP DESKJET 3320	$75
HP PHOTOSMART 7150	$189
HP LASERJET 1000	$339
HP LASERJET 1200N (NETWORK PRINTER)	$819
LEXMARK Z25	$73
LEXMARK Z35 ($30 MAILING REBATE)	$92

Canon LEXMARK

YOU HAVE THE POWER AMD

ICCT

ALL BRANDS AND PRODUCT NAMES ARE TRADEMARKS OR REGISTERED TRADEMARKS OF THIRE RESPECTIVE COMPANIES. ALL PRICES AND CONFIGURATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE OR OBLIGATION. ALL PRICES ARE ALREADY 4% CASH DISCOUNTED. 8N23JAN03_2FP_R_J

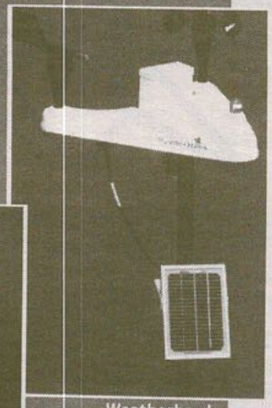
COMPUTER BOOKS
Register at Pcmaniak .com
Insane Prices
Online Shopping
FREE! FREE!
BOOKS FOR A Year!
OR GO TO OUR LOCATIONS
Downtown: (416) 593-4845
Mississauga: (905) 602-9901
PC MANIAK .com
22581614

A cacophony of convergence at CES

By DAVID TANAKA

The Consumer Electronics Show has become the must-attend venue for any self-respecting digital technology enthusiast. Consumer electronics covers a huge array of products, but the effects of digital convergence could be seen nearly everywhere, from MP3 car stereos, to full-blown PCs camouflaged as stereo components, to Internet-enabled appliances.

One indicator that the computer industry and the consumer electronics sector are partying together is that both Microsoft co-founder, Bill Gates, and Intel CEO, Craig Barrett, were CES keynote speakers – and predictably both were talking about the central role that digital data and PCs have in tomorrow's consumer electronics developments. Another indication was the number of companies exhibiting that would be just as comfortable at a computer-specific show like Comdex. Following are some of the products we noted during our floor crawl.


Weatherhawk

Solarpak for Game Boy

PowerCore

WristPDA

Prodikeys

JukeBox Zen

Good sound from Axiom

Axiom Audio, an Ontario-based speaker manufacturer, won an Audio Product of the Year award for its home theatre system, the Epic Grand Master. The award was presented during CES and was given by onhometheater.com, an online publication catering to audio, video and movie enthusiasts. The Grand Master speaker system comprises right, left and centre speakers, two surround speakers and a subwoofer. Suggested retail price is under $2,400.

PowerCore: When neatness counts

If the area around your computer system is a tangle of wires and connectivity devices, the GoldX PowerCore System from JDI Technologies (www.jditech.com) might help you reclaim your workspace. It's a stackable modular connection system. The base unit is a small uninterruptible power supply, but the unusual part of it is that it also contains a 56-watt DC power supply. Other connectivity hubs (USB, FireWire, Ethernet, etc.) can be stacked onto the base unit, and draw electrical power from the base unit, so that they do not have to be powered by separate bricks, reducing cable clutter. The company claims that the base unit will supply power for up to 16 USB or 12 FireWire ports.

Ears wide open at Creative Labs

In the heyday of the Comdex computer trade shows, Creative always had one of the loudest and busiest booths, and at this year's CES, it was clear that the company was at it again, announcing several new products.

With the acquisition of high-end audio and speaker companies a few years ago, Creative set out to eliminate the gap between PC sound and audiophile sound, and its latest SoundBlaster Audigy 2 Platinum eX takes another step towards that. The Platinum eX version is a two piece system – the Audigy 2 PCI sound card and an external break-out box with a slew of connections (FireWire, optical SPDIF, MIDI, and analogue) that resembles the company's Extigy external SoundBlaster for notebooks. The Audigy 2 is THX-certified, and also supports 6.1 Dolby Digital EX movies with a rear centre speaker. Creative claims the Audigy 2 is the first PC sound card to support DVD-Audio, and we were treated to a side-by-side comparison of the Eagles' "Hotel California" on CD and DVD-Audio. It sounded like a completely different recording, but Creative said it was the 24-bit 96 KHz of DVD-Audio, which delivers more audio data.

Other announcements by Creative:

- Prodikeys, which combines a computer keyboard and a 37-key musical keyboard. The music keyboard is located below the ASCII keyboard, and when doing computer-related tasks, the user can put a cover on the musical keyboard, the cover acting also as a wrist support.
- TravelSound MP3, a portable speaker system that also includes an MP3 player and a voice recorder. The unit has 32 MB of onboard memory plus a SmartMedia card slot.
- JukeBox Zen with USB 2.0. The previous hard-drive based Zen model (rectangular design like the iPod only bigger, in contrast to the CD-player shaped Nomad) had USB 1.1 and FireWire, and that model will be joined by a 20 GB model with USB 2.0.
- Graphics Blaster Picture Perfect. This product won't be shipping until later this spring, but Creative is working with ArcSoft to develop image editing applications that use the graphics

processor on the card, or what Creative calls the "visual processing unit," to speed up tasks such as stitching together a series of images into a panorama.

A weather station in your home

If you think the weather channel doesn't do a good enough job of reporting on the microclimate around your humble abode, why not set up your own weather station? WeatherHawk (www.weatherhawk.com), based in Logan, Utah, was showing its line of wired and wireless weather stations designed for home and educational use. The unit requires mounting on a tower or pole, and includes sensors for wind speed and direction, air temperature, relative humidity, solar radiation, barometric pressure and rainfall. Included software keeps a log of the sensor readings, and also will calculate variables like wind chill and heat index. Optional software will also allow users to link their own weather station on a free (for now) Web hosting site, and then check on their weather from any Web browser.

The wired version connects to a computer through the serial (RS-232) port, and the wireless versions operate on 916 MHz, 922 MHz or 2.4 GHz radio bands.

Let the sun shine on Game Boy

Winner of a CES 2003 "most innovative product of the year" award is Sunpower Systems Inc. (www.snpower.com) of Canoga Park, Calif., for its Solarpak solar recharger/battery pack for the Nintendo Game Boy. The company also makes a PDA case with a built-in solar panel charging unit, cell phone batteries with an embedded solar charger, and small standalone solar panels with a modular connector system with plugs for specific devices.

Palm your wrist

Fossil (www.fossil.com) had a line of wristwatches that have a Palm organizer built in. The Wrist PDA, as Fossil calls it, has a 33 MHz Dragonball VZ processor built in, which uses Palm OS 4.1. The screen will display 160x160 pixels and supports 16 grey levels, but rather than showing a full Palm screen on the tiny display, the watch shows fewer icons and less screen information, but at a size close to what you'd get on a regular Palm device. The watch has 2 MB of RAM, and will connect to a PC through USB. It also includes an infrared port, so users can beam information back and forth with other Palm devices. ◆

infonec Computers

MARKHAM
505 Hood Road, Unit 13
Markham, ON L3R 5V6
TEL: 416-410-5481
FAX: 905-305-6807
Mon-Fri 10:00-7:30
Sat 10:00-5:00

MISSISSAUGA
400 Matheson Blvd. E., #6
Mississauga, ON L4Z 1N8
TEL: 416-410-5481
FAX: 905-507-8141
Mon-Fri 10:30 -7:00
Sat 10:30-3:30

Government & Company PO are welcomed Leasing is available upon request

416-410-5481 www.infonec.com sales@infonec.com

Office 302
ECS K7S5A ATX MB
SiS Chipset
Onboard Sound & Lan
128MB PC266 DDR SDRAM
SEAGATE 40G U100 7200rpm HD
Rage128 Pro 32M SDR AGP
LG 52X Cd-Rom
PANASONIC 1.44M Floppy
Medium ATX Case w/300W
Windows 104 Keys PS/2 KB
LOGITECH Wheel Mouse
Stereo Speakers

Duron1.3Ghz ----------$545
XP1800+ 1.53Ghz ----$565
XP2000+ 1.60Ghz ----$589
XP2100+ 1.67Ghz ----$609

Supreme 302
MSI KT4V-L MB
KT400 Chipset
Onboard Sound & Lan
256MB PC2100 DDR SDRAM
MAXTOR 40G U133 7200rpm HD
MSI GF4 MX440-8X 64MB DDR TVO
LG 32x10x40/16X CDRW/DVD Rom
ALTEC LANSING AVS300 Subwoofer
PANASONIC 1.44M Floppy
Medium ATX Case w/300W
MITSUMI Internet KB
LOGITECH Wheel Mouse
MICROSOFT Windows XP Home

XP1800+ 1.53Ghz --$965
XP2000+ 1.67Ghz --$989
XP2100+ 1.73Ghz --$1009
XP2400+ 2.0Ghz ----$1149

Home 302
ASUS P4B533VM-L MB
Intel(r) 845G Chipset MicroATX
Onboard Sound, Video, Lan
128MB PC2100 DDR SDRAM
SEAGATE 40G U100 7200rpm HD
LG 16X DVD Rom
PANASONIC 1.44M Floppy
Medium ATX Case w/P4 300W
Internet KB & Wheel Mouse Combo
ALTEC AVS200 Stereo Speakers

Celeron 1.7Ghz ------- $605
Celeron 1.8Ghz ------- $629
Celeron 2.0Ghz ------- $655
Pentium4 1.7Ghz ----- $715

Xtreme 302
ASUS P4PE-L ATX MB
Intel(r) 845PE Chipset
Onboard Lan, Sound, USB2.0
256MB PC2100 DDR
MAXTOR 40G U133 7200rpm HD
ASUS V9180TD GF4 MX440-8X 64M
SONY 16X DVD Rom
ALTEC AVS300 Subwoofer
PANASONIC 1.44M Floppy
ATX Case w/P4 300W
MICROSOFT MM Internet KB
MICROSOFT Optical Mouse
MICROSOFT Windows XP Home

INTEL(r) Pentium(r) 4 Processor
Intel P4 1.8AGHz----$1125
Intel P4 2.0AGHz----$1155
Intel P4 2.40BGHz---$1198
Intel P4 2.53BGHz---$1265

SPECIALS CORNER
ATI AiW Radeon9700
128M DDR Retail
$599
SAMSUNG ML-1440
15ppm 8M 600dpi
$319
MAXTOR 60G
U133 7200rpm 2M
$135

MOTHERBOARDS

ABIT IT7-Max2/AT7-Max2	$259/259
ABIT KD7-E/KD7/KD7-RAID	$129/159/175
ABIT BE7/BE7-RAID	$149/189
ABIT SR7-8X/NF7-S	$145/195
ASUS P4PE-L/-SL/-GbL	$189/225/229
ASUS P4S8XGold/P4GE-V	$195/218
ASUS P4B533/-EL	$175/219
ASUS P4B533-VL/VML	$229/155
ASUS P4T533/-CL	$259/249
ASUS P4S533/-E/-VML	$149/165/125
ASUS A7N8X/Deluxe	$189/219
ASUS A7V8X/SR/GbL	$179/199/225
ASUS A7S333/A7V333-X	$109/135
ASUS A7M266D w/Lan	$325
ECS K7S5A/K7VMM	$85/89
ECS P4VXASD2+/L7VMM	$89/89
EPOX EP-4G4A+/4G4A	$195/165
EPOX EP-8RDA+/8K5A2+	$179/165
INTEL 845PEBT2/845EPT2	$199/149
INTEL 850EMV2/850EMVR	$229/235
MSI KT4 Ultra-SR/KT4V-L	$179/129
MSI 6398E Max2-LR/-BLR	$199/249
MSI 6585 Si5648 Max-L	$165
TYAN S1854 Slot1/S370 P3	$135
TYAN S2507T Dual P3	$175
TYAN TigerMPX DualAMD	$335
SUPERMICRO P4DCE+	$665

CPU & RAM

INTEL	
Xeon/Pentium4/Pentium3/Celeron	Check on web
AMD	
Athlon MP / XP / Duron	Check on web
RAM / Compact Flash / SmartMedia	
PC-1066/PC-800 RIMM	Check on web
PC400/PC333/PC266 DDR	Check on web
PC-133/PC-100 SDRAM	Check on web

ACCESSORIES

LOGITECH Cordless Elite Duo	Optical	$125
LOGITECH Cordless Comfort	Optical	$125
LOGITECH MX700/MX500	Mouse	$105/75
MICROSOFT Natural MM KB	retail	$79
MICROSOFT MultiMedia KB	retail	$49
MICROSOFT Wls Explorer	retail	$89
MICROSOFT IntelliOptical	retail	$69
WACOM Graphire2 4x5 Tablet		$135
WACOM Intuos2 4x5 Tablet		$289

HARD DRIVE

MAXTOR		
200/160/80/60 (8M, U133)		$509/409/215/179
120/80/60 (2M, U133)		$229/159/135
40/30 (2M, U133)		$125/105
60/120/200G FW/USB2 7200		$279/399/579
250G ext. FW/USB2 5400		$695
ATLAS 10K3 U320 73/36/18		$829/389/279
ATLAS 10K3 U160 73/36/18		$785/355/259
WESTERN DIGITAL		
200/120/80/40 (8M, U100)		$469/289/189/139
200/120/80/60 (2M, U100)		$429/249/159/149
SEAGATE		
Barracuda Serial ATA V drives		Coming Soon
Barracuda V 120/80/60G		$239/179/145
Barracuda ATA IV 80G/60G/40G		$169/139/125
Cheetah X15 73G/36G/18G U320		$1075/559/349
Cheetah 146G/73G/36G U320		$1479/799/345
IBM		
60/120G (7200, U100)		$149/269
USB Drive		
V-Drive 64M/128M/256M		$55/85/155
LACIE		
Storage Products		Call for Prices

CONTROLLERS

ADAPTEC		
RAID 1200A/2400A/2100S Kit		$99/509/629
39320D-R Kit / 29320-R Kit		$509/439
39160/29160/19160 Kit		$515/405/329
TEKRAM		
DC390U3W/395U/315 Kit		$289/75/49
PROMISE		
SATA 150 TX2+/TX4		$89/119
FastTrak Tx2000 U133 RAID/Pro		$149/309
Ultra133 / Ultra100 Tx2 Kit		$75/55
FastTrak SX4000 4-Ch Raid5		$235
SuperTrak SX6000 6-Ch Raid 5		$425
LAVA		
USB 2.0 / 1.1 Dual Ports PCI		$79/39
USB 2.0/Firewire ext. box		$119/119
DSerial PCI/Dual Parallel PCI		$69/69
IOGEAR		
GCS62 2 ports KVM PS/2		$79
GCS12 2 ports KVM PS/2		$109
GCS14 4 ports KVM PS/2		$179
GCS84A 4 ports KVM PS/2		$199
BELKIN		
OmniView SOHO 4 ports KVM PS2	w/audio	$179

VIDEO CARDS

ATI (Sapphire)		
AiW Radeon 9700 Pro 128M	box/oem	$599/589
Radeon 9700 Pro 128M	box/oem	$545/515
Radeon 9500 Pro 128M	box/oem	$299/275
Radeon 9000 Pro 128M/64M		$159/145
Radeon 9000 128M/64M		$135/115
AiW Radeon 8500 128M DDR	box/oem	$409/389
AiW Radeon 8500DV 64M DDR	box/oem	$279/259
AiW Radeon 7500 64M DDR	box/oem	$199/185
Radeon 8500LE 128M DDR		$149
Radeon 7500 64M DDR DVI		$89
Radeon 7000 64M DDR TVO		$75
Rage128 Pro 32M AGP		$45
TV Wonder PCI/USB	box	$99/105
ASUS		
V9280S/TVD TI4200-8X 128M	VIVO	$325
V9280TD TI4200-8X 128M/64M		$245/205
V9180VS MX440-8X VIVO		$179
V9180TD MX440-8X TVO		$129
V8170DDR MX440SE 64M	TVO	$105
ABIT		
Siluro GF4 TI4200-8X 128M	OTES	$269
Siluro GF4 TI4200 64M TVO	OTES	$199
MATROX		
Parhelia-512 128M Triple Head		$499
G550/G450 32M DDR Dual-Head		$155/135
G450-eTV retail		$325
3DLabs.		
WildCat VP 760/870/970		$695/895/1895
Oxygen VX-1 32M AGP4X		$149
MSI		
GF4 TI4600-8X 128M VIVO		$459
GF4 TI4200-8X 128M VIVO		$279
GF4 TI4200-8X 64M TVO		$225
GF4MX440 TD8X 64M VIVO		$179
GF4MX440 TD8X 64M DVI+TVO		$165
GF4MX440 TD8X 64M TVO		$118

MODEMS

3COM		
V.90 56K Hardware w/Voice		$70/79
V.90 56K Winmodem w/Voice		$37/42
AOPEN		
V.92 56K DI/F/V PCI PX		$45
V.92 56K DiF PCI Winmodem		$27
ROCKWELL/INTEL		
V.90 56K DiF Winmodem PCI		$19
GVC		
DSL internal/external modem		$105/99

MULTI-MEDIA

CD/DVD ROM DRIVE		
ASUS/SONY/LG 52X		$45/39/35
TOSHIBA/SONY 16X DVD		$69/65
PIONEER 16X DVD Slot/Tray		$75/69
DVD RW DRIVE		
SONY DRU500 DVD+/-RW	Int/ext	$549/679
PIONEER DVD-RW IDE	oem/box	$409/439
HP 200i DVD+RW IDE/Ext.		$499/599
CD-RW DRIVE		
ASUS 48x16x48 CDRW		$89
LG 48x24x48 CDRW		$79
LG 52x24x52 CDRW		$95
LG 32x10x40/16 CDRW/DVD	Combo	$115
AOPEN CRW48x12x50	Wht/Blk	$89/95
SONY 48x10x40 CDRW		$89
LITEON 52x24x52 CDRW		$99
LITEON 48x24x48 CDRW	Wht/Blk	$79/89
PLEXTOR 48x24x48 Kit	Wht/Blk	$155/175
PLEXTOR 20x10x40/12 Kit	Plexcombo	$225
YAMAHA CRW-F1 wht/blk		$159/159
YAMAHA CRW-F1 ext.USB2		$265
SOUND CARD		
SB Audigy 2/ Platinum		$175/265
SB Extigy USB Ext.		$199
SB Audigy MP3/Gamer/Oem		$135/135/95
SB Live 5.1/128		$49/29
HERCULES Fortissimo II/III		$69/85
HERCULES Theatre XP7.1		$149

SPEAKERS

ALTEC LANSING		
220/221/251		$45/59/119
2100/5100/621/641		$115/199/169/219
XA3001/3021/3051		$69/115/205
CAMBRIDGE		
MegaWorks/Inspire 6600/5200		$399/149/95
Inspire 4400/2600 Slim/2500		$85/69/69
YAMAHA		
MS201/MS50/TSS-1		$65/119/259
LOGITECH		
Z340/Z540/Z640/Z580/Z680		$69/89/125/219/435

PALM

Palm M125/M130/M515	$149/349/479
Palm Zire/Tungsten T	$149/679
SONY Clie	Call
VIEWSONIC ViewPad	Call

MONITORS

VIEWSONIC		
E70f 17" .21h 1280 Flat		$229
G71f-SB 17" .24Ag 1280 Flat		$265
G90f 19" .21h 1600 Flat		$365
P95F+ 19" .25Ag 2048 Flat		$395
P225f 22" .24 2048 Flat		$985
VE500/VE155 15" 1024 LCD		$449/449
VE700/VE170m 17" 1280 LCD		$745/699
VE800/VG800 18" 1280 LCD		$919/979
SONY		
E240/G220R/G220S 17" .24		$389/429/479
G410R/420S 19" .24 1800		$575/599
E540/G520P 21" .24		$855/1095
S51/S71/S81 LCD Panel		$515/849/999
X52/X72/X82 Digital LCD		$575/919/1099
SAMSUNG		
750S 17" .27 1280		$179
753DF 17" .20h 1280 Flat		$205
763MB 17" .20h 1280 Flat		$238
757MB 17" .20h 1920 Flat		$309
955DF 19" .20h 1600 Flat		$329
957MB 19" .20h 1600 Flat		$369
152T 15" .29 1024 TFT LCD		$575
172T 17" .26 1280 TFT LCD		$865
NEC		
AS95f .20h 1600 Flat		$335
FE991-SB .25Ag 1792 Flat		$395
LCD 1550V 15.1" 1024		$505
LCD 1700V 17" .26 1280		$809
LG Electronics		
E700B 17" .25 1280 Flat		$215
E900B 19" .25 1600 Flat		$345
566LM 15" .27 1024 TFT LCD	w/spk	$445
786LS 17" .26 1280 LCD		$689
L1810B 18.1" .28 1280 DVI LCD		$1195
EPSON Projectors		
30C 800 lumens SVGA		$1859
53C 1700 lumens SVGA		$2569

SCANNERS

CANON LIDE20/30/D1250U2	$99/145/139
CANON 5000F/8000F	$275/365
EPSON 1260/2400	$135/309
EPSON Photo1260/1660/2450	$179/255/539
HP3500C/3570C/4570C/5500C	$135/205/269/415
HP7400C/7450C/7490C	$645/885/1185
MICROTEK 3800/4800/5900	$109/129/255
MICROTEK V6UPL/X12USL	$195/379

PRINTERS

SAMSUNG	
ML1210/1430 Laser 600dpi	$285/309
ML1440/1450 Laser	$319/415
EPSON	
C42UX/C62/C82	$69/135/219
Photo 820S/825/925	$135/275/365
Photo 960/1280/2200P	$495/679/975
CANON	
I320/I550/I850/S820	$99/185/225/275
S530/S830D/S900/S9000	$275/409/365/719
MultiPASS F20/F60/F80	$285/375/559
HP	
Deskjet 3320/3420/3820/5550	$79/99/135/185
Deskjet 6122/6127/450Ci	$275/365/409
Laserjet 1000/1200/2200	$345/525/985
Laserjet MFP3300/3320/3330	$715/895/985
LEXMARK	
Z25/Z45SE/Z55SE/Z65N	$65/119/165/259
BROTHER	
HL1230/1440	$265/439
HL1450/1470N/1850	$485/615/789
Multi-Func.4800/6800/8500	$425/595/598

NETWORK

3COM 3C905Cx-TXNM	$59
AOPEN 10/100bT PCI	$20
DLINK 530TXS/538TX 10/100	$19
DLINK DSS-5+/DSS-8+ Switch	$55/75
DLINK DI604/704P/814+/713P	$75/99/159/245
LINKSYS 4/8ports RTR	$99/129
LINKSYS Wls 4ports RTR	$165
LINKSYS Wls PC/USB/PCI	$95/99/105
LINKSYS Phoneline RTR/nic	$195/69
SMC 4ports RTR(VBR/ABR)	$79/115
SMC Wls 4ports RTR	$165
SMC 8ports RTR(ABR)	$129

UPS

APC	
SurgeArrest Per7/Per7T	$29/35
BackUPS ES 350/500	$69/95
BackUPS VS500/LS500/LS700	$119/169/189
BackUPS Pro 650/1400	$375/679
SmartUPS 420/620/700	$309/395/479
SmartUPS 1000/1500 USB	$685/889
TRIPPLITE	
IsoBar 4 / 6 / 8Ultra	$69/79/99
Internet 300/525/Smart500U	$95/119/165

Prices are subjected to change without advanced notice. All systems are 1 year parts & 3 years labor depot warranty. All components are one year warranty unless specified. All prices are 4% Cold Cash discounted. Taxes & shipping are not included. All products are registered trademarks of their respective companies

22582914

FEATURE

Home theatre audio on the cheap

By ANDREW MOORE-CRISPIN

Getting home theatre sound into the living room has traditionally been an expensive affair that the average user would need an electronics engineering degree to figure out.

A record number of home theatre audio systems were sold this holiday season, which means some of our readers likely found one under the tree or perhaps in a larger-than-life stocking.

For those of us that weren't that lucky, all is not lost. A simple home theatre audio setup is cheaper than ever before, bringing the total price of a dedicated DVD home theatre ensemble to about the price of your average 24-inch CRT television, and you don't need a full home theatre setup complete with a massive television or an elaborate stereo system to enjoy home theatre audio.

More and more DVDs and console video games are working surround sound into their products, making the time ripe to start taking advantage of the more immersive experience that comes with being surrounded in a wash of high fidelity sound as a movie or video game is being played.

While the very top of the line home theatre would undoubtedly be nice to have, most of us don't need many of the options or the hassle that goes along with setting up and maintaining the ultimate, and setting up an inexpensive 5.1 speaker set can give your current home entertainment area a new lease on life.

Altec Lansing 251

Points to consider

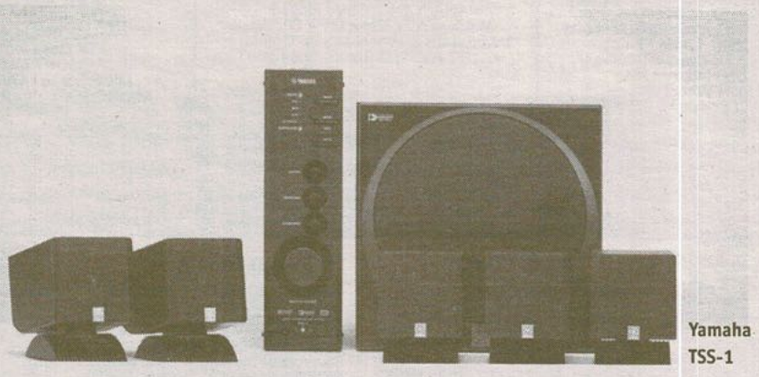
Before considering a home theatre audio system, potential audiophiles need to think about how it will be set up. 5.1 systems, which are the most prevalent right now, come with one subwoofer and five speakers, called satellites. The satellites are defined as centre, front left, front right, rear left and rear right. In other words, in setting up full 5.1 speaker set so as to get the truest and most movie-theatre-like sound, the speaker setup and room acoustics would determine the placement of the furniture. Be prepared to either suffer with less than perfect acoustics or to rearrange the furniture.

Also, setting up a full 5.1 system involves a lot of wires, some of which have to be laid across to the other side of the room to carry the audio signal to the rear speakers. For this reason, it is important to look for speakers that offer long enough wires to make it inconspicuously all the way across the room.

Doing it on the cheap

The simplest option for relatively inexpensive home theatre audio is to purchase a DVD player home theatre combo. These have been heavily pushed over the holiday season, and cost approximately $500. The biggest benefits of these all-in-one systems are that they include everything you need to set up home theatre audio right out of the box, and everything is controlled with one remote. They also give more control over volume and equalization of the individual speakers. However, for those of us who already own a DVD player or video game console and just want to hook some better speakers up to the thing, there are a number of inexpensive 5.1 speaker sets available that are usually marketed for PC use, but that can also be hooked up to a DVD player, video game console or anything else with AV, mini plug, or, on usually more expensive models, optical or coaxial audio.

The biggest drawback of these speakers is that there is usually no way to control the volume of individual speakers, as this function, it is assumed, would be taken care of with software on the PC.



Yamaha TSS-1

A note on switching between sources

Hooking everything up to a main receiver that controls the volume independent of the source is the best option for home theatre applications, but another option is to get an AV switcher. These boxes usually accept four or five AV jack inputs, depending on the make and model. The speaker system would

GOGO COMPUTERS

GoGo Woodbine 14th Ave.

7800 Woodbine Ave, Unit 118
N/West corner of 14th & Woodbine
Phone: (905) 477 - 0900

Mon – Fri: 10.00 am – 7.00 pm
Sat – Sun: 11.00 am – 5.00 pm
Fax: (905) 477 -2110

$ 409
AMD XP 1700+
ECS K7S5A 266 M.B.
128MB PC2100 266 DDR RAM
PINE 32M AGP
30GB MAXTOR 7200 ATA 133
52X MSI CD-ROM / 1.44FDD
16BIT S.C on board
10-100 ETHERNET on board
ATX CASE 300W MIDTOWER
KB / MOUSE / SPK
XP1800/2000:$429/$449

$ 489
AMD XP 1800+
ASUS A7S333 M.B.
256MB PC2100 DDR RAM
PINE 32M AGP
30GB MAXTOR 7200 ATA 133
52X MSI CD-ROM / 1.44FDD
16 BIT S.C on board
SMARTLINK 10-100 ETHERNET
ATX CASE 300W MIDTOWER
KB / MOUSE / SPK
XP2000/2100:$515/$529

$ 549
AMD XP 1800+
MSI KT4VL 8X AGP M.B.
256MB PC2100 DDR RAM
GF2 MX400 64M AGP
30GB MAXTOR 7200 ATA 133
40X16X48 CDRW / 1.44 FDD
16 BIT S.C on board
10-100 ETHERNET on board
ATX CASE 300W MIDTOWER
KB / MOUSE / SPK
XP2000/2100:$575/$589

$ 569
AMD XP 1800+
ASUS A7V333-X M.B.
256 MB PC2700 333 DDR RAM
GF2 MX400 64M AGP
30GB MAXTOR 7200ATA 133
40X16X48 CDRW / 1.44 FDD
16 BIT S.C on board
10-100 ETHERNET on board
ATX CASE 300W MIDTOWER
KB / MOUSE / SPK
XP2000/2100:$595/$609

$ 729
AMD XP 2000+
ASUS A7V8X KT400 8XAGP MB
256 MB PC2700 333 DDR RAM
GF4 MX440 64M AGP
60GB MAXTOR 7200 ATA133
40X16X48 CDRW
16X SONY DVD
1.44 FDD / 16 BIT S.C on board
10-100 ETHERNET on board
300W CASE/ KB/ MOUSE/SPKS
XP2100/2400:$749/$899

$ 699
INTEL P-4 1.8A
ASUS P4S533-E M.B
256MB PC2700 333 DDR
GF2 MX400 64M AGP
30GB MAXTOR 7200 ATA 133
40X16X48 CDRW / 1.44 FDD
16 BIT S.C on board
10-100 ETHERNET on board
ATX CASE 300W MIDTOWER
KB / MOUSE / SPK
P4-2.0A/2.4B:$729/$779

$769
INTEL P-4 1.8A
ASUS P4B533 M.B.
256MB DDR
GF2 MX400 64M AGP
30GB MAXTOR 7200 ATA 133
16X SONY DVD
40X16X48 CDRW
1.44 FDD / 16 BIT S.C on board
SMARTLINK 10-100 ETHERNET
300W CASE/ KB/ MOUSE/SPKS
P4-2.0A/2.4:$799/$849

$ 399
INTEL Celeron 1.7
ECS P4VXASD2+533 FSB 2.0 USB
128MB PC2100 266 DDR RAM
PINE 32M AGP
30GB Maxtor ATA 133 HDD
52X MSI CDROM / 1.44 FDD
16b s.c&10-100ethernet on board
ATX CASE 300W MIDTOWER
KB / MOUSE / SPK
Cel1.8/p4-1.7:$429/$509
P4-1.8A/2.0A:$539/$569
Prices already 4% cash discounted

$ 619
INTEL P4-1.8A
ECS P4VXASD2+533 FSB 2.0 USB
256MB PC2100 DDR RAM
GF2 MX400 64M AGP
30GB MAXTOR 7200 ATA 133
40X16X48 CDRW / 1.44 FDD
16b s.c&10-100ethernet on board
ATX CASE 300W MIDTOWER
KB / MOUSE / SPK
Cel1.7/Cel1.8:$479/$509
P4-2.0A/2.4B:$649/$699
Subject to change without notice

HARD DRIVE
30GB Maxtor 7200 $99
60GB Maxtor 7200 $125
80GB Maxtor 7200 $145
80GB 2M/8M W.D.7200 $145/$165
120G 2M/8M W.D.7200 $229/$269
60GB /80GB IBM 7200 $129/$155
60GB /80GBSeagate7200$129$155

MONITOR
17" LG 700S $165
17" Samsung 750S/753DF $169/$199
19" Samsung950/955DF $279/$329
19" NEC AS95F FLAT W/B $339
15"NEC1550V/ LG LCD $459/$449
15"Samsung151Sw/s $435/$455
17" SAMSUNG 171S W/B $709/$719

VIDEO CARD
PINE 32M AGP $27
G-F2 MX400 64M/TVOUT $45/$55
RADEON 7000 64M tvout $49
RADEON 7500 64M DDR tvou t $69
RADEON 9000 64M DDR tvout $95
ATI ALL-IN-W Rad 7500 64M $188
ATI ALL-IN-W Rad8500DV64m$269

MAIN BOARD
ECS K7S5A $79
ECS P4VXASD2+ $75
ASUS A7S333 $100
ASUSA7V333-X $125
ASUS A7V8X $155
ASUSP4S533-E $145
ASUSP4B533 $165

CD-WRITE
Cyber Drive 40x16x48 retail $60
LG 48x24x48 /52x24x52 re $65/$85
Sony 48x12x48 $71
Liteon48X24X48/52x24x52 re$75/89
PioneerA05DVD-RW RETAIL $409

SPECIAL
52XMSI CD-ROM $27
16XSony $55
Smartlink 10-100 PCI $8
D-LINK 4 PORT Router $69
S.B.5.1 PCI $45
EPSON C42 PRINTER $65
AVS300W/AVS500W $35/$55
Logitech Cordless KB+MOUSE $75
Logitech Optical Cordless k+m $119

$ 599
INTEL P-4 1.8A
ASUS P4SE AGP
256MB PC2100 DDR RAM
PINE 32M AGP
30GB MAXTOR 7200 ATA 133
52X MSI CDROM / 1.44 FDD
16 BIT S.C on board
10-100 ETHERNET on board
ATX CASE 300W MIDTOWER
KB / MOUSE / SPK
P4-2.0A/2.4B:$629/$689
Warranty: 1yr parts & 5yrs labor.

$879
INTEL P-4 2.0A
ASUS P4S8X M.B
256MB PC2700 333 DDR
GF4 MX440 64M AGP
60GB MAXTOR 7200 ATA133
40X10X40 CDRW
16X SONY DVD
1.44 FDD / 16 BIT S.C on board
10-100 ETHERNET on board
300W CASE/ KB/ MOUSE/SPKS
2.4B/2.53B:$929$999
Please call for more details.

22581214

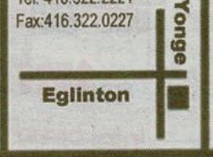
PC Village

www.pcvillagecanada.com

--Check daily on-line CPU & RAM price, special--

Scarborough
4820 Sheppard Ave. East
unit #21
Tel: 416.335.8887
Fax:416.335.3200

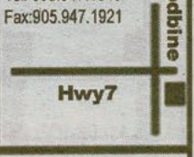
North York
2221 Yonge Street
(Yonge/Eglinton)
Tel: 416.322.2221
Fax:416.322.0227



Toronto
684 Yonge Street
(Yonge/Bloor)
Tel: 416.975.9268
Fax:416.975.0291

Richmond Hill
#245 - Unit 3
W.Beaver Creek Rd.
Tel: 905.889.5488
Fax:905.889.0663

Markham
3229 Hwy7 7E #7
(Hwy7/Woodbine)
Tel: 905.947.1918
Fax:905.947.1921



SUPER SPECIAL

INTEL CELERON 1.1GB CPU, 128 MB SDRAM
AOPEN MB, 30GB HDD
52X CD-ROM
1.44 FLOPPY DRIVE
8M AGP VIDEO CARD(SHARED)
32 BIT SOUND CARD
10/100 NETWORK CARD
ATX MID TOWER CASE
104 KEYBOARD/MOUSE, 120W SPEAKERS

$379

NEW RELEASE

AMD XP 1700+ CPU, 256MB PC133 SDRAM
ECS K7S5A MB, 30GB 7200RPM HDD
48X24X48 CD_RW, 1.44 FLOPPY DRIVE
RIVA TNT2 32M AGP VIDEO CARD
32 BIT SOUND CARD, 10/100 NETWORK CARD
600W SPEAKERS WITH SUBWOOFER
ATX MID TOWER WITH 300W POWER SUPPLY
INTERNET KEYBOARD/WHEEL MOUSE
15" TFT LCD MONITOR

$899

DIAMOND SYSTEM

INTEL P4-2.0G CPU(512K), 256 MB DDR
ASUS P4SE MB, 40GB 7200RPM HDD
16X DVD, 48X24X48 CD_RW
GEFORCEII MX 64M VIDEO CARD
10/100 NETWORK CARD, 1.44 FLOPPY DRIVE
32BIT SOUND CARD, ATX MID TOWER
600W SPEAKERS WITH SUBWOOFER
INTERNET KEYBOARD/ WHEEL MOUSE
17" SAMSUNG 753DF FLAT SCREEN

$1049

***ALL SYSTEMS WITH FIVE YEARS LABOUR & ONE YEAR PARTS WARRANTY ***

BEST DEAL

INTEL P4-1.7G CPU, 256 MB PC133 SDRAM
P4 MB, 30GB 7200RPM HDD
52X CD_ROM
32M AGP VIDEO CARD(SHARED)
32BIT SOUND CARD, 1.44 FLOPPY DRIVE
10/100 NETWORK CARD
ATX MID TOWER CASE
104 KEYBOARD/MOUSE, 120W SPEAKERS
17" SAMSUNG 750S MONITOR

$679

MONTHLY SPECIAL

15" TFT LCD	*$365*
17" TFT LCD	*$679*
LG 15" 1511S TFT LCD	*$439*
SAMSUNG 15" 151S TFT LCD	*$429*
SAMSUNG 17" 171S TFT LCD	*$719*
SAMSUNG 17" 753DF MONITOR	*$197*
ASUS V9280 G4 128M TI4200 8X	*$235*
LG 16X DVD/32X12X40 CD_RW	*$105*

** WITH SYSTEM PURCHASE ONLY**

MAGMA SYSTEM

INTEL P4-2.4G CPU(533 FSB), 256 MB DDR
ASUS P4B533 MB, 80GB HDD 7200RPM
1.44 FLOPPY DRIVE
16X DVD, 48X24X48 CD_RW
GEFORCE4 64M VIDEO CARD
CREATIVE S.B. LIVE 5.1, 10/100 NETWORK CARD
600W SPEAKERS WITH SUBWOOFER
ATX MID TOWER WITH P4 POWER SUPPLY
INTERNET KEYBOARD/ WHEEL MOUSE

$1059

**** ALL PRICE ARE ALREADY 3% CASH DISCOUNTED, PRICE SUBJECT TO CHANGE WITHOUT NOTICE ****

NOTEBOOKS

TOSHIBA
SATELLITE 1110
INTEL CELERON 1.8GB
256MB DDR-SDRAM
20GB HDD
14.1" TFT LCD
DVD-ROM
56K MODEM
10/100 NETWORK CARD
MS WINDOWS XP HOME
$1599

FUJITSU
LIFEBOOK C2111E
INTEL PENTIUM4 1.7GB
256MB DDR-SDRAM
20GB HDD
15" XGA TFT
DVD/CD_RW COMBO
56K MODEM
10/100 NETWORK CARD
MS WINDOWS XP HOME
$2159

SAMSUNG

SAMSUNG AUTHORIZED DEALER
WE DO:
SAMSUNG MONITOR
17" 750S MONITOR
17" 753DF FLAT SCREEN MONITOR
17" 755DF FLAT SCREEN MONITOR
19" 950B MONITOR
19" 955DF FLAT SCREEN MONITOR
15" 151S TFT LCD
17" 171S TFT LCD
SAMSUNG LASER PRINTER
ML1250 LASER PRINTER
ML1440 LASER PRINTER
BEST PRICE, CHECK OUR WEBSITE

Mainboard

ASUS P4T533_C	$239
ASUS P4SE	$97
ASUS P4S533	$147
ASUS P4S8X	$188
ASUS P4B266_C	$146
ASUS P4B533/_E	$167/$219
ASUS P4PE_L/_VL	$183/$219
ASUS P4PE_GBLR	$249
ASUS A7S333	$99
ASUS A7V333_X/RAID	$162/$186
ASUS A7V8X_WL/_GBL	$179/$219
ASUS A7V8X_L_1394	$199
ASUS A7N8X DELUX	$207
ASUS A7M266-D	$299
MSI KT3 ULTRA2/RAID	$107/$175
MSI KTVL/ULTRA	$119/$146
ABIT KD7/_E	$145/$125
ABIT IT7 MAXII	$267
ECS P4VX 8X	$79
ECS K7S5A	$82

CD/DVD/CD_RW

LG 52X CDROM	$31
SONY 52X	$34
LG 16X DVD	$56
LITEON 16X DVD	$55
SONY 16X DVD	$58
PIONEER 16X DVD	$64
LG 48X24X48 CD_RW	$71
LG 52X24X52 CD_RW	$82
SONY 48X24X48 CD_RW	$75
SONY 52X24X52 CD_RW	$93
PLEXTOR 40X12X40 CD_RW	$166
PLEXTOR 40X12X40 CD_RW USB	$272
LITEON 48X24X48 CD_RW	$76
LITEON 52X24X52 CD_RW	$85
YAMAHA CRW-F1 44X24X44	$219
PIONEER DVD_RW A04	$459

Video Card

ATI TV WONDER(R)	$99
ATI TV WONDER USB(R)	$105
ATI ALL-IN-WON 64M R7500(O)	$186
ATI ALL-IN-W 64M R8500 DV(O)	$265
ATI ALL-IN-W 128M R8500(O)	$395
ATI RADEON 7000 32M (O)	$52
ATI RADEON 7000 64M (O)	$64
ATI RADEON 7500 64M (O)	$83
ATI RADEON 8500LE 128M(O)	$137
ATI RADEON 9000 128M(O)	$132
ATI RADEON 9000 PRO 128M(O)	$199
ATI RADEON 9500 PRO 128M (R)	$319
ATI RADEON 9700 PRO 128M (R)	$525
ASUS V8170 64M G4 MX 40	$99
ASUS V9180 MAGIC 64M	$119
ASUS V9180 8X 64M MX440 TD	$135
ASUS V9180 8X 64M MX440 VIVO	$183
ASUS V9280 8X 128M TI4200	$243
MSI GEFORCE3 TI200 128M	$175
MSI GEFORCE4 MX440 64M SE	$97
MSI GEFORCE4 MX440 64M T	$119
MSI GEFORCE4 TI4200VTP 128M	$309

Sound Card

32BIT PCI SOUND CARD	$18
64BIT PCI SOUND CARD	$22
S.B. 128 PCI	$29
S.B. LIVE 5.1 OEM PCI	$46
S.B. AUDIGY OEM PCI	$91
S.B. AUDIGY MP3+/X-GAMER (R)	$131
S.B. AUDIGYII PLATINUM(R)	$269

Modem

AOPEN 56K PCI	$26
AOPEN 56K PCI H.W.	$39
USR 56K PCI	$38
USR 56K PCI H.W.	$69
USR 56K PCI H.W./VOICE	$89

Hard Drive

IDE-HDD	5400 RPM	7200 RPM
MAXTOR		
30GB	$96	$102
40GB	$109	$114
60GB	$132	$129
80GB	$145	$149
120GB	$229	$225
W.D.		
20GB	$92	$99
40GB	$115	$117
40GB (8M CACHE)		$132
60GB		$134
80GB		$148
80GB (8M CACHE)		$169
100GB		$199
120GB		$225
120GB (8M CACHE)		$259
SEAGATE		
40GB		$116
60GB		$129
80GB		$148

Ethernet

10/100 ETHERNET PCI	$14
LINKSYS 10/100 NIC PCI	$20
DLINK 10/100 NIC PCI	$20
3COM 10/100 905C TX NIC	$59
DLINK 10/100 5PORTS SWITCH	$64
DLINL 10/100 8PORTS SWITCH	$82
DLINK 4 PORTS ROUTER	$66
U.S.R. 4PORTS ROUTER	$79
LINKSYS BEF-SR41 ROUTER	$89
LINKSYS BEF-SR81 ROUTER	$135
LINKSYS WIRELESS ROUTER	$164
LINKSYS WIRELESS USB NIC	$99
LINKSYS WIRELESS PCMCIA	$99
LINKSYS WIRELESS PCI	$99
USB HDD ENCLOSURE EX.	$120

Monitor

VIEWSONIC	
17" E70F/E70FB	$229
19" P95F+	$399
19" E90F	$357
19" G90F	$375
15" LCD VE500	$459
15" LCD VE155	$469
17" LCD VE170B	$747
18" LCD VG800	$988
LG	
17" 700S	$167
17" E700B	$198
19" 900B	$279
15" LCD 1511S	$439
17" LCD 786LS	$699
NEC	
17" FE700+	$229
15" LCD 1550V	$499
18" LCD 1850EB	$999

Printer

CANON	
S330	$115
S520	$137
SAMSUNG	
ML_1430	$279
ML_1440	$309
EPSON	
C42UX	$63
C62	$135
C82	$213
LEXMARK	
Z25	$76
Z35	$95
E210 LASER	$239
HP	
3320	$75
3420	$125

22582214

ALL ITEMS IN STOCK @ BNC (WHILE QTY'S LAST)

DURON 1400 128mb-30gb 56k-10/100-CD Kybd/Mouse/Spk $349

INTEL P4 1.7 128mb-30gb 56k-10/100-CD Kybd/Mouse/Spk $529

AMD XP 1700 128mb-30gb 56k-10/100-CD Kybd/Mouse/Spk $429

INTEL PIII933 128MB-30GB CD-10/100 SOUND/VIDEO $459

DELL PII400 DESKTOP
128mb-6gb CD-1.44 W/17" Monitor $279
64mb-4gb CD-1.44 W/17" Monitor $259

Intel Celeron 433 128mb-13gb-CD 56K-1.44-Kybd & Mouse Incl (New) $219

Intel PII350 Tower 64mb-10gb-CD-1.44 10/100-SOUND/VIDEO w/17" Monitor (90 Day Warr) $269

Intel PII667 Destop 128mb-20gb-CD-10/10 Kybd/Mouse incl. Windows 98 $349

QuickCam Express USB $35-

Classic 107 Ps2 Keyboard $9.99

Freedon USB Cordless Optical $99-

Navigator Internet USB $29-

Optical Scroll USB $16-

Optical Cordless USB $39-

Cordless USB Mouse $25-

Ps2 Mouse (new) $3-

Ps2 Mouse scroll $6-

Palm IIIxe 8mb w/cradle incl AAA Batt NEW 90day $89-

Thinkpad IBM 360 $849
PIII450-128mb-12gb CD-56k-10/100-14.1"

$89- New,Retail 90dayWarr
IBM 8.1gb PCMCIA External Hard Drive

10/100 PCMCIA
1. IBM 10/100 $19-
2. Xircom 10/100 $20-
3. 3Com 10/100 $25-

56K PCMCIA
1. Compaq 56k $19-
2. 3Com 56k $25-

$12- USB or Ps2 Optical Scroll

$99- Make your Own Cables
1000ft Cat5e w/100 conn incl/Crimper & Tester

Unpowered 4 Port USB Hub $16-
NEW-Retail

Powered 4 Port USB Hub $19-
NEW-Retail

10/100 PCI
1. Intel 10/100 $19-
2. 3Com 10/100 $29-

LINKSYS 10/100 USB External $19-

6 IN 1 $39- Memory Card Reader
NEW-Retail

$50- 25 pack
Princo 4.7gb DVD-R Media

$20- 10 pack
24X 80min w/label Kit

$16- 50 pack
48X 80min SMART BUY

$15- 50 pack
48X 80min CMC MEDIA

$15- 50 pack
48X 80min Pioneer

$7- 10 pack
48X 80min JewelCase

Model:DPP500 Factory Ref $299
Princeton 14" LCD Flatpanel incl16mb video

Model:A70F Brand New $219
Viewsonic 17" Pure Flat .21dp Monitor

Model:700S Brand New $175
LG 17" .27dp Monitor

OFF Lease 90Day Warr $99- 17" Grade A

visioneer ONETOUCH 5800 USB $49
48bit

visioneer ONETOUCH 8820 USB $79
Scanner & Transparency Adapter

CD ROM's
1. 6X CDROM $12-
2. 8x CDROM $15-
PULLS-90 Day

CD ROM's
1. 32X CDROM $19-
2. 40x CDROM $25-
PULLS-90 Day

SAMSUNG 40x12x40 w/software $75 Brand New

BTC 16X DVD Brand New $55

UMAX SXE $29 SCSI 24 Bit Colour Scanner
Brand New-Retail

acer 620T Parallel 32bit $69 w/Transparancy

32mb Video
1.TNT II M64 AGP $45-
2. Asus AGP TV/Out $49-

rage 128 $25
16mb AGP Video

ATi 32mb PCI Video $45

Sound Cards
1. 4Channel PCI $10-
2. 6Channel PCI $15-
3. SB PCI 128 $19-

HARD Drive
Maxtor 30gb 5400rpm... $99-

Micro ATX Case & P/S 2x5.25" 1x3.5"
NEW!!! $25-

$10
Harman/Kardon HK 206 2pc Brand New

56k PCI v.92 Modem $19
MOTOROLA

$29 56k External USB Modem
Brand New (Retail)

HARD Drive
IBM 30gb (NEW) 7200rpm.. $149-

Cat 5 Network Cable w/connectors
3ft...$0.89 6ft...$1.29 10ft...$1.69 14ft...$1.89
4ft...$0.99 7ft...$1.39 12ft...$1.79 15ft...$1.99
20ft.$2.49 25ft...$2.99

WHOLESALE CUSTOMERS WELCOMED

Visit our showroom for in store Specials!

BNC Systems Inc.

Www.bnccom.com

Mon-Fri 9:30am-6:30pm
Saturday 11:00am-5:00pm

Contact us Tel. (905)678-1242 Fax (905)678-1252

Mississauga
7205 Tranmere Dr. Unit # 6

22598214

*Products names mentioned herein maybe trade names and /or registered trademarks of their respective companies. Images may vary.

FEATURE

Home theatre audio on the cheap

continued from page 22

then be hooked up as the primary audio out, with the video signal running directly to the TV or through an RF modulator, depending on whether your television is equipped with AV ins or coaxial in. Then it's just a matter of switching between the different components in your entertainment centre using the buttons on the front of the unit.

Altec Lansing 251

$149.99
Total System Power: 45 RMS
Frequency Response: 35Hz - 18kHz
Signal to Noise Ratio > 70 dB
Satellite Speakers: Driver power: 5 Watts RMS (per channel)
Subwoofer: Driver power: 20 Watts RMS

This is the best and worst of the systems tested: The best because it gives users a number of options and work arounds, which makes it the most versatile of the speakers we had in the office, the worst because the wires are too short and too fat to make for an inconspicuous and effective home installation.

Rather than put inputs on the back of the subwoofer, which is standard practice in PC 5.1 sets, the 251 gives users a long cord with three mini jack inputs on the end, as well as the necessary adapters for using AV cables, which is the most common output on video game consoles and DVD players alike.

The sound is rich and full, giving every nuance of the 5.1 sound being piped through on a DVD movie (tested on all systems using the extended edition of *The Lord of the Rings: The Fellowship of the Ring*) or video game (tested on all systems using *Splinter Cell* for the Xbox).

The 251 system suffers from the same drawbacks as most speakers in this class; namely, there is no way to adjust the sound of individual speakers or channels without using some sort of receiver.

The left front speaker controls the power, centre balance surround and volume with small knobs on the front of the unit.

For $149.99, these speakers count in as some of the least expensive ones, making their drawbacks more forgivable.

Yamaha TSS-1

$249.99
Total System Power: 48 Watts RMS
System Frequency Response: 40Hz - 20kHz
Signal to Noise Ratio: >70dB

www.LOGIC COMPUTER HOUSE.com

Computer Fest Feb.07-09 **We'll see you there at Booth #427 !!!**

February Special

Price Only Effective Between Feb 01 -15 '2003

ALL ITEMS ARE CASH PRICES & ALREADY 3% CASH DISCOUNTED :-)

CREATIVE Audigy2 Sound Audigy2
$179
Audigy2 Platinum $272

MSI
MS-8348
48x16x48
IDE CD-RW
2MB Buffer
Exaclink Buffer Under-run
$70

TOSHIBA
CD-RW/DVD COMBO
16x10x40 CD-RW
12x DVD
2048K Buffer
CD-R1202
$85

PLEXTOR
48x24x48
4MB Buffer
Burn-Proof
IDE CD-RW Kit
$159

D-Link
DI604
4-Port Router
$69
DI704P
4-Port Router w/PrintServer
$89

CREATIVE
I-Trique2.1 3300
$120
Inspire6.1 6600
$156

MSI
MS-6570G
Socket A
nForce 2 Chipset
8x AGP FSB333 USB2.0
Audio/Video/Lan Onboard
K7N2-L
$190

LG Electronics
CD-RW: 32x10x40
DVD: 16X
GCC-4320B
$112
CD-RW: 52x24x52
GCE-8520B
$89

YAMAHA
CRW-F1-UXVK
44x24x44
Ext. USB2.0
CD-RW Kit
w/Laser Labeling
$267

CREATIVE
World's thinnest Digital Camera
CREATIVE CardCam
1.3megapixel
8mb memory
1.3 ounces
$131

ASUS
V9280
GeForce4 TI4200
8x AGP
64MB $213
128MB $259

ViewSonic
A70f
17" (16"viewable)
1280x1024 Max Res.
0.25 Dot Pitch
3yrs. warranty
$219

LG Electronics
Monitors Special
17" Studioworks 700S $170
17" EZ-Flat E700B $203
19" Flatron 900B $285

IBM Travelstar E
8GB
External HardDrive
4900rpm 12.0ms
w/PCMCIA Card
$99

IBM
A20M
THINK PAD
Cel500 128M, 6.4gHD, CDR
12.1TFT, Modem, Lan, Sound
USB, TV OUT,
Win98, Fac. Ref.
$599

acer TM223X
TravelMate
Celeron 1.13GHz
14.1" XGA TFT LCD
128MB PC-133 SDRam
20GB ATA-100 HD
24X CD Rom
10/100 Ethernet
$1499

acer TM630XV
TravelMate630
Pentium4-M 1.4GHz
14.1" XGA TFT LCD
256MB DDR Ram
20GB ATA-100 HD
8X DVD Rom
$2259

LG Electronics
15" Flatron LCD 1511S $434
15" Flatron LCD 566LM $449
17" Flatron LCD 786LS $670

Pioneer
DVR-A05U
4X
DVD-R/RW Kit
$429

Pentium4 Starter Series

- ASUS P4S533VM SIS651 Socket478 M/B
- 256MB DDR RAM 266MHz
- ATX 350W Mid Tower Case
- 1.44MB Panasonic Floppy
- 30GB 7200rpm Hard Drive
- On-Board Video
- On-Board Audio & Lan
- 17" LG 700S 0.27dpi Monitor
- Hitachi 32x IDE CDRom (New Pull)
- 56K V.90 PCI Fax Modem
- PS/2 Internet Keyboard
- Logitech PS/2 Wheel Mouse
- Altec Lansing ACS-21W Spks.

Celeron 1.7 GHz **$739**
Pentium4 1.8A GHz **$889**
Pentium4 2.4A GHz **$979**

Pentium4 CD-RW Series

- MSI-6566E Intel 845E Socket478 M/B
- 256MB DDR RAM 266MHz
- ATX 350W Mid Tower w/Handle
- 1.44MB Panasonic Floppy
- 60GB 7200rpm Hard Drive
- ECS AG315P SIS315 64MB AGP
- On-Board Audio
- 15" LG 566LM LCD Monitor w/Built-in Speakers
- 48x12x48 IDE CD-RW
- 56K V.90 PCI Fax Modem
- HP Multimedia Keyboard
- HP Wheel Mouse

Celeron 1.7 GHz **$1119**
Pentium4 1.8A GHz **$1269**
Pentium4 2.4B GHz **$1359**

** Free 10pcs CD-R Disc while quantity last**

Pentium4 Platinum Series

- MSI 648Max SIS648 Socket478 M/B
- 256MB DDR RAM 333MHz
- 1.44MB Panasonic Floppy
- 80GB 7200rpm Hard Drive
- MSI 8890 MX440 64MB 8X AGP
- On-Board Audio & Lan
- 17" LG 786LS LCD Monitor
- LG 48x24x48 IDE CD-RW
- Sonlab CS-SW3 Spks $ Subwoofer
- Black/Silver Mid Case w/350W PS
- 56K V.90 PCI Fax Modem
- PS/2 Internet Keyboard
- Logitech PS/2 Optical Mouse

Celeron 1.7 GHz **$1569**
Pentium4 2.4B GHz **$1799**
Pentium4 2.53B GHz **$1859**

** Free 8MB USB Flash Drive while quantity last**

AMD Starter Series

- ASUS A7N266-VM SocketA M/B
- 256MB DDR RAM 266MHz
- ATX 350W Mid Tower Case
- 1.44MB Panasonic Floppy
- 30GB 7200rpm Hard Drive
- On-Board nVIDIA GF2 Video
- On-Board Audio & Lan
- 17" LG 700S 0.27dpi Monitor
- Hitachi 32x IDE CDR (New Pull)
- 56K V.90 PCI Fax Modem
- Compaq PS/2 Internet KB
- Logitech PS/2 Wheel Mouse
- Altec Lansing ACS-21W Spks.

AthlonXP 2000+ **$779**
AthlonXP 2200+ **$909**
AthlonXP 2600+ **$1129**

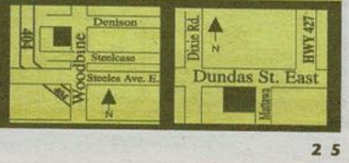
ALL Systems are Backed by 1 or 3 Yrs Parts & Labor Depot Warranty We Service all IBM Compatible Systems (UPGRADE & REPAIR)

** Store Hours: **
Mon-Fri. 10:00a.m - 9:00p.m.
Sat. 10:00a.m - 6:00p.m.
Sun. 12:00p.m - 5:00p.m.

- Government & Corporate PO's Accepted - Dealers are Welcome

WAREHOUSE OUTLET
7310 Woodbine Avenue
(Woodbine & Denison)
TEL: (905) 415-0909
FAX: (905) 415-0911

MISSISSAUGA LOCATION
1590 Dundas St. E.
(Hwy 427 & Dundas)
TEL: (905) 276-9995
FAX: (905) 276-5108



-Some products not exactly as illustrated & While Quantities Last - We reserve the right to limit quantities - Logic Computer House disclaims any proprietary interest in trademarks or trade name except it's own - Price and availability Are subject to change without notice All Sales already 3% cash discounted . Any other form of payment will be cash discounted price plus 3% . 15% re-stocking charge. All sales are final.

22573814

Home theatre audio on the cheap

continued from page 24

Satellite Speakers: Driver power: 6 Watts RMS (per channel)
Subwoofer: Driver power: 18 Watts RMS

Of the four systems tested, the TSS-1 is the only one with a separate receiver as part of the package.

None of the systems comes with a remote, as they are mostly intended for use with a PC where everything would be on the desk anyway negating the need for a remote.

The TSS-1 is also the only system that takes advantage of optical in, a high fidelity audio source found on higher level DVD players and standard on the PS2.

The biggest advantage the TSS-1 holds over its competitors is the aforementioned receiver with volume, balance, surround and subwoofer (bass) controls on the front and the fact that its cables are thin with extra length given to the rear speakers, making them about seven metres in length; enough to be able to hide the cables under a rug and carry the signal to the rear speakers behind the couch without tripping anyone that tries to walk through.

The TSS-1 was also designed with home theatre applications in mind, and gives users plenty of choices for audio signal in. The system gives a full rich sound, which as with all of the systems tested, won't impress the true home theatre aficionados, but is more than enough to enhance a movie or video game.

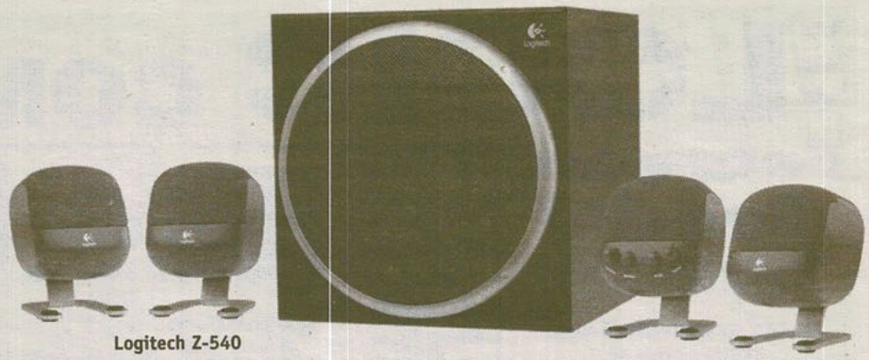
Logitech Z-540

$99.99 (estimated street price)
Total System Power: 40 Watts RMS
System Frequency Response: 35Hz - 20kHz
Signal to Noise Ratio: >75dB
Satellite Speakers: Driver power: 5 Watts RMS (per channel)
Subwoofer: Driver power: 20 Watts RMS

This speaker set is actually a 4.1 system, lacking a centre speaker. Instead, 5.1 signals are converted with the centre signal coming through on both the left and right front speakers.

The Z-540 is also much more for PC use, which means to set it up for home theatre use would require a lot of jury rigging.

Rather than having female in plugs, as are usually found on home theatre speakers, the Z-540 has two male 1/8-inch jacks, one to carry the front signal and one for the rear signal. As a desktop system, the Z-540 gives a balanced sound with good surround. The speakers are also the best looking and most balanced of the lot, as the four speakers



Logitech Z-540

aren't satellite speakers and can reproduce a wide range of sounds, both bass and treble.

However, the relatively short and fat speaker cables, along with the fact that many adapters and converters would have to be used makes it unsuited to home theatre audio use.

Hercules XPS 510

$139 (from US$89.99)
Total System Power: 60 Watts RMS
System Frequency Response: 40Hz - 20kHz
Signal to Noise Ratio: >65dB
Satellite Speakers: Driver power: 8 Watts RMS (per channel)
Subwoofer: Driver power: 20 Watts RMS

The Hercules system is the most barebones of the four units we checked out, though you wouldn't know it to listen through your PC. The sturdy subwoofer has a power button, volume and bass knobs on the front, and that's as far as fine-tuning goes without the included software.

The five satellite speakers are made of plastic but do a good job of reproducing higher end sounds, while the subwoofer takes good care of the bass.

While the Hercules setup has female sound inputs, the system is designed with only PC use in mind. The three ins run to a 5.1 sound card and would require a lot of work and many adapters to convert to home theatre use; too bad really, given that this system's rear satellite speakers have the thinnest and longest wiring of any of the systems tested. ◆

PREMIER COMPUTER CANADA - PCCANADA.COM

Feb

PREMIER CHOICE BRONZE

- ☑ ECS P4S5MG/650+ for Socket 478 CPUs or ECS K7SEM-266 for Socket A CPUs
- ☑ Panasonic 3.5" - 1.44MB HD Floppy Disk Drive
- ☑ 40Gb Fast ATA-100 Hard Disk Drive @ 5400RPM
- ☑ 256Mb SDRAM, PC/133MHz, 168Pin RAM Memory
- ☑ Mid-Tower 6 Bay ATX Case w/ 300W Power Supply
- ☑ On-Board EIDE Controller & Ultra/100 Support
- ☑ 2- USB Ports, 1- 16550 Serial Ports, 1 PS/2 Mouse Port & 1- Bi-Directional Parallel Port
- ☑ On-Board AGP 3D Video w/ 64Mb Buffer
- ☑ On-Board PCI Stereo Sound w/ Surround Sound
- ☑ 56k Fax/Modem w/ Voicemail, v.90, AMR
- ☑ On-Board 10/100 PCI Full Duplex Network Adapter
- ☑ Fifty-Two Speed (52X) Max EIDE CD-ROM Drive
- ☑ Samsung 750S Digital .24hdp SVGA Colour Monitor
- ☑ Mitsumi 104 Enhanced Soft-Touch Win 95 Keyboard
- ☑ Labtec Spin 50 Amplified Powered Stereo Speakers
- ☑ Microsoft Compatible Serial Mouse w/ Mouse Pad
- ☑ MS Windows XP Home OEM w/ CD and Manual
- ☑ **5 Years Labour & 1 Year Parts Warranty**

AMD Duron 1.3-GHz	**$799.99 or $30/mth**
AMD Athlon XP-1700+	**$829.99 or $31/mth**
AMD Athlon XP-1800+	**$844.99 or $31/mth**
AMD Athlon XP-2000+	**$869.99 or $32/mth**
AMD Athlon XP-2100+	**$884.99 or $33/mth**
AMD Athlon XP-2200+	**$969.99 or $36/mth**
AMD Athlon XP-2400+	**$1039.99 or $38/mth**
Intel Celeron-1.7GHz	**$824.99 or $30/mth**
Intel Celeron-1.8GHz	**$849.99 or $31/mth**
Intel Celeron-2.0GHz	**$869.99 or $32/mth**
Intel Celeron-2.1GHz	**$884.99 or $33/mth**
Intel Celeron-2.2GHz	**$909.99 or $34/mth**
Intel Pentium 4-1.7GHz	**$929.99 or $34/mth**
Intel Pentium 4-1.8GHz	**$954.99 or $35/mth**
Intel Pentium 4-2.0A-512k	**$989.99 or $36/mth**
Intel Pentium 4-2.4B-512k	**$1034.99 or $38/mth**
Intel Pentium 4-2.5B-512k	**$1104.99 or $40/mth**

PREMIER CHOICE SILVER

- ☑ Abit KD7 Motherboard for AMD Socket A or Abit BE7 Motherboard for Intel Pentium 4 CPUs
- ☑ Thermaltake Volcano 6CU+ Heat Sink/Fan for AMD CPU
- ☑ Panasonic 3.5" - 1.44MB HD Floppy Disk Drive
- ☑ 60Gb Fast ATA-100 Hard Disk Drive @ 7200RPM
- ☑ 256Mb DDR RAM, PC2700, 184Pin RAM Memory
- ☑ Premium 6 Bay Mid-Tower ATX Case w/ 300W P.S.
- ☑ On-Board EIDE Controller & Ultra/100 Support
- ☑ 4- USB Ports, 2- 16550 Serial Ports, 1 PS/2 Mouse Port & 1- Bi-Directional Parallel Port
- ☑ ATI Radeon 9100 AGP Video w/ 64Mb & TV-Out
- ☑ 16X DVD-ROM Drive w/ 40X CDROM support
- ☑ On-board PCI Stereo Sound w/ Surround Sound
- ☑ Altec Lansing AVS500 w/ 4 Speakers & Subwoofer
- ☑ Rockwell 56K Int. Voice/Fax/Modem v.90 (PCI)
- ☑ On-Board 10/100 PCI Full Duplex Network Adapter
- ☑ Samsung 753DF 17" Digital .20hdp CRT Monitor, Flat
- ☑ Mitsumi 104 Enhanced Soft-Touch Win 95 Keyboard
- ☑ Logitech Optical Mouse w/ Wheel w/ Mouse Pad
- ☑ MS Windows XP Home OEM w/ CD and Manual
- ☑ **5 Years Labour & 1 Year Parts Warranty**

AMD Duron 1.3-GHz	**$1224.99 or $45/mth**
AMD Athlon XP-1700+	**$1254.99 or $46/mth**
AMD Athlon XP-1800+	**$1269.99 or $47/mth**
AMD Athlon XP-2000+	**$1294.99 or $48/mth**
AMD Athlon XP-2100+	**$1309.99 or $48/mth**
AMD Athlon XP-2200+	**$1394.99 or $51/mth**
AMD Athlon XP-2400+	**$1464.99 or $54/mth**
Intel Celeron-1.7GHz	**$1244.99 or $46/mth**
Intel Celeron-2.0GHz	**$1289.99 or $47/mth**
Intel Celeron-2.2GHz	**$1329.99 or $49/mth**
Intel Pentium 4-1.7GHz	**$1349.99 or $50/mth**
Intel Pentium 4-1.8GHz	**$1374.99 or $50/mth**
Intel Pentium 4-2.0A- 512k	**$1409.99 or $52/mth**
Intel Pentium 4-2.4B- 512k	**$1454.99 or $53/mth**
Intel Pentium 4-2.5B- 512k	**$1524.99 or $51/mth**
Intel Pentium 4-2.6B- 512k	**$1604.99 or $54/mth**
Intel Pentium 4-2.8B- 512k	**$1764.99 or $59/mth**

PREMIER CHOICE GOLD

- ☑ Asus P4S8X Motherboard for Intel Pentium 4 CPUs or Asus A7V8X Motherboard for AMD CPUs
- ☑ Thermaltake Volcano 7 Heat Sink /Fan for AMD CPUs
- ☑ Panasonic 3.5" - 1.44MB HD Floppy Disk Drive
- ☑ 80Gb Fast ATA-100 Hard Disk Drive @ 7200RPM
- ☑ 512Mb DDR RAM, PC2700, 184 Pin RAM Memory
- ☑ Enlight Mid-Tower ATX Case w/ 7 Bays & 300W P.S.
- ☑ On-Board EIDE Controller & Ultra/100 Support
- ☑ 4- USB Ports, 2- 16550 Serial Ports, 1 PS/2 Mouse Port & 1- Bi-Directional Parallel Port
- ☑ Asus v9180TD GeForce4-MX440-8X w/ 64Mb & TV-Out
- ☑ Sony 48x12x48 CD-RW Drive w/ Burn Software
- ☑ SoundBlaster Live 5.1 PCI Stereo Soundcard
- ☑ Creatve Inspire 4.1-4400 Speaker System w/ Subwoofer
- ☑ US Robotics 56K Internal Fax/Modem v.90 (PCI)
- ☑ D-Link 10/100Mbit Full-Duplex Network Adapter (PCI)
- ☑ Samsung 950B 19" Digital .22hdp CRT Monitor
- ☑ Keytronic 104 Enhanced Soft-Touch Win 95 Keyboard
- ☑ Microsoft Wheel Mouse Optical Mouse w/ Mouse Pad
- ☑ MS Windows XP Home OEM w/ CD and Manual
- ☑ **5 Years Labour & 1 Year Parts Warranty**

AMD Duron 1.3-GHz	**$1599.99 or $53/mth**
AMD Athlon XP-1700+	**$1629.99 or $54/mth**
AMD Athlon XP-1800+	**$1644.99 or $55/mth**
AMD Athlon XP-2000+	**$1669.99 or $56/mth**
AMD Athlon XP-2100+	**$1684.99 or $56/mth**
AMD Athlon XP-2200+	**$1769.99 or $59/mth**
AMD Athlon XP-2400+	**$1839.99 or $61/mth**
AMD Athlon XP-2600+	**$1994.99 or $67/mth**
Intel Celeron-1.7GHz	**$1614.99 or $54/mth**
Intel Celeron-2.0GHz	**$1659.99 or $55/mth**
Intel Celeron-2.2GHz	**$1699.99 or $57/mth**
Intel Pentium 4-1.8GHz	**$1744.99 or $58/mth**
Intel Pentium 4-2.0A- 512k	**$1779.99 or $59/mth**
Intel Pentium 4-2.4B- 512k	**$1824.99 or $61/mth**
Intel Pentium 4-2.5B- 512k	**$1894.99 or $63/mth**
Intel Pentium 4-2.6B- 512k	**$1974.99 or $66/mth**
Intel Pentium 4-2.8B- 512k	**$2134.99 or $71/mth**

PREMIER CHOICE PLATINUM

- ☑ Abit IT7-Max2-2.0 Motherboard w/ i845ep Chipset for P4 or Abit AT7-Max2 Motherboard for AMD CPUs
- ☑ Thermaltake Volcano 7+ Heat Sink /Fan
- ☑ Panasonic 3.5" - 1.44MB HD Floppy Disk Drive
- ☑ 120Gb ATA/100 Hard Disk Drive @ 7200RPM w/ 8Mb
- ☑ 512Mb DDR RAM, PC3200, 184 Pin RAM Memory
- ☑ Enermax Mid-Tower ATX Case w/ 7 Bays
- ☑ Pentium 4 - 300W ATX Power Supply w/ 2 Fans
- ☑ 4- Ultra/133 Channels & 2- Serial ATA Channels
- ☑ 8- USB Ports and 4- 1394 Firewire Ports
- ☑ ATI All-In-Wonder Radeon 9700Pro w/ 128Mb DDR
- ☑ Plextor 48x / 24x / 48x CR-RW Drive w/ Software
- ☑ Realtek ALC650 Audio w/ 6 Channel Support
- ☑ Creative Inspire 6.1 6600 w/ 6 Speakers & Subwoofer
- ☑ US Robotics 56K Internal Fax/Modem v.90 (Hardware)
- ☑ Realtek 8100B Interface for 10/100Mb Network Access
- ☑ Samsung 151S 15" LCD Monitor, .297mm
- ☑ Microsoft Internet Keyboard Pro , USB w/ Internet Keys
- ☑ Microsoft Intellimouse, USB w/ Mouse Pad
- ☑ Thermaltake Smart 80mm Second Case fan
- ☑ Arctic Silver III Thermal Heat Compound
- ☑ MS Windows XP Professional OEM w/ CD and Manual
- ☑ **5 Years Labour & 1 Year Parts Warranty**

AMD Duron 1.3-Ghz	**$2814.99 or $94/mth**
AMD Athlon XP-1800+	**$2859.99 or $95/mth**
AMD Athlon XP-2000+	**$2884.99 or $96/mth**
AMD Athlon XP-2100+	**$2899.99 or $96/mth**
AMD Athlon XP-2200+	**$2984.99 or $99/mth**
AMD Athlon XP-2400+	**$3054.99 or $100/mth**
AMD Athlon XP-2600+	**$3209.99 or $105/mth**
AMD Athlon XP-2700+	**$3284.99 or $107/mth**
Intel Celeron-2.2GHz	**$2949.99 or $98/mth**
Intel Pentium 4-2.0A- 512k	**$3229.99 or $99/mth**
Intel Pentium 4-2.4B- 512k	**$3074.99 or $101/mth**
Intel Pentium 4-2.5B- 512k	**$3144.99 or $103/mth**
Intel Pentium 4-2.6B- 512k	**$3224.99 or $106/mth**
Intel Pentium 4-2.8B- 512k	**$3384.99 or $111/mth**
Intel Pentium 4-3.0B- 512k	**$3779.99 or $124/mth**

Hot New Products ... Lower Pricing ... Available Canada Wide

Visit us online at www.pccanada.com for up-to-date pricing, new products, secure ordering & fast shipping Canada wide.

Due to fluctuating memory and CPU pricing, check our web site for up-to-date pricing.

Premier CPUs & Memory

AMD Duron 950Mhz @ 100/200Mhz (Socket A)	see web
AMD Duron 1.3-Ghz @ 100/200Mhz (Socket A)	see web
AMD Athlon XP 1700+ @ 266Mhz (Socket A)	see web
AMD Athlon XP 1800+ @ 266Mhz (Socket A)	see web
AMD Athlon XP 2000+ @ 266Mhz (Socket A)	see web
AMD Athlon XP 2100+ @ 266Mhz (Socket A)	see web
AMD Athlon XP 2200+ @ 266Mhz (Socket A)	see web
AMD Athlon XP 2400+ @ 266Mhz (Socket A)	see web
AMD Athlon XP 2600+ @ 333Mhz (Socket A)	S see web
AMD Athlon XP 2700+ @ 333Mhz (Socket A)	S see web
Intel Celeron 1.7-GHz (Socket 478) @ 400Mhz	see web
Intel Celeron 1.8-GHz (Socket 478) @ 400Mhz	see web
Intel Celeron 2.0-GHz (Socket 478) @ 400Mhz	see web
Intel Celeron 2.2-GHz (Socket 478) @ 400Mhz	N see web
Intel Pentium 4-1.7-GHz (Socket 478)	see web
Intel Pentium 4-1.8-GHz (Socket 478)	see web
Intel Pentium 4-2.0-GHz (Socket 478) 512k	see web
Intel Pentium 4-2.4-GHz @ 533 Mhz (S478) 512k	see web
Intel Pentium 4-2.5-GHz @ 533 Mhz (S478) 512k	see web
Intel Pentium 4-2.6-GHz @ 533 Mhz (S478) 512k	N see web
Intel Pentium 4-2.8-GHz @ 533 Mhz (S478) 512k	N see web
Intel Pentium 4-3.0-GHz @ 533 Mhz (S478) 512k	N see web

Full List of CPUs Available Online

128 MB, SDRAM PC/133Mhz	see web
256 MB, SDRAM PC/133Mhz	see web
512 MB, SDRAM PC/133Mhz	see web
256 MB, DDRAM SDRAM PC2100 (266Mhz)	see web
512 MB, DDRAM SDRAM PC2100 (266Mhz)	see web
256 MB, DDRAM SDRAM PC2700 (333Mhz)	see web
512 MB, DDRAM SDRAM PC2700 (333Mhz)	see web
256 MB, DDRAM SDRAM PC3200 (400Mhz)	S see web
512 MB, DDRAM SDRAM PC3200 (400Mhz)	see web
OCZ 256 MB, DDRAM SDRAM PC2700	OCZ see web
OCZ 256 MB, DDRAM SDRAM PC3200	see web
OCZ 256 MB, DDRAM SDRAM PC3500 EL	see web
OCZ 256 MB, DDRAM SDRAM PC3500 Dual Channel EL	see web
OCZ 512 MB, DDRAM SDRAM PC2700	see web
OCZ 512 MB, DDRAM SDRAM PC3200	S see web
OCZ 512 MB, DDRAM SDRAM PC3500 EL	see web
OCZ 512 MB, DDRAM SDRAM PC3500 Dual Channel EL	S see web
128 MB, Rambus, 184Pin, PC800 Non-ECC	S see web
256 MB, Rambus, 184Pin, PC800 Non-ECC	see web
256 MB, Rambus, 184Pin, PC1066 Non-ECC	see web
256 MB, Rimm, 232Pin, PC1066 Non-ECC	S see web

Premier Hard Drives & Storage

40GB ATA/100 5400RPM EIDE Hard Drive	$114.99
60GB ATA/100 5400RPM EIDE Hard Drive	$129.99
40GB ATA/100 7200RPM EIDE Hard Drive	$124.99
80GB ATA/100 7200RPM EIDE Hard Drive	$139.99
80GB ATA/100 7200RPM EIDE Hard Drive	$154.99
120GB ATA/100 7200RPM EIDE Hard Drive	$229.99
WD 80GB ATA/100 7200RPM Hard Drive w/ 8Mb	$174.99
WD 120GB ATA/100 7200RPM Hard Drive w/ 8Mb	$264.99
WD 180GB ATA/100 7200RPM Hard Drive w/ 2Mb	WOW $369.99
WD 180GB ATA/100 7200RPM Hard Drive w/ 8Mb	$424.99
WD 200GB ATA/100 7200RPM Hard Drive w/ 2Mb	WOW $439.99
WD 200GB ATA/100 7200RPM Hard Drive w/ 8Mb	$474.99
Maxtor 160GB ATA/133 7200RPM Hard Drive w/ 8Mb	$384.99
Maxtor 200GB ATA/133 7200RPM Hard Drive w/ 8Mb	N $479.99

Full List of Hard Drive Brands Available Online - 1 Yr Warranty

Panasonic 1.44Mb Floppy Disk Drive (Black or Beige)	$14.99
Iomega Zip Drive 250Mb EIDE / 750Mb USB	B $109.99/$249.99
Promise Ultra/133 TX2 Controller Card	B $69.99

Premier Motherboards

Motherboards for AMD CPUs

Abit AT7-Max2, Socket A, VIA KT400 (ATX) Non-Legacy	$254.99
Abit KD7-E, Socket A, VIA KT333 (ATX)	N $124.99
Abit KD7, Socket A, VIA KT400 (ATX) w/w RAID	$149.99/$164.99
Asus A7S333, Socket A, SiS745 (ATX)	$109.99
Asus A7V8X, Socket A, KT400 (ATX) Serial ATA	$179.99
Asus A7N8X-DX, Socket A, nForce2 (ATX) Serial ATA	$209.99
ECS K7S5A, Socket A, SiS 745 Chipset w/ Lan & Sound	$94.99
ECS K7SEM-266, Socket A (MATX) w/ Video, Sound & Lan	$94.99
Soyo SY-KT400 DRAGON Ultra (Platinum Edition)	N $224.99

Motherboards for Intel CPUs

Abit BD7-II, Socket 478, Intel i845E (ATX)	$139.99
Abit BE7, Socket 478, Intel i845PE (ATX) wo/w RAID	$154.99/$179.99
Abit IT7-Max2-2.0, Socket 478, Intel i845PE (ATX) Non-Legacy	N see web
Asus P4G8X, Socket 478, Intel E7205 Chipset (ATX)	N see web
Asus P4PE-Lan, Socket 478, Intel i845PE Chipset (ATX)	$179.99
Asus P4PE-GbL/SATA/1394, Socket 478, Intel i845PE Chipset (ATX)	$219.99
Asus P4S8X, Socket 478, SiS 648 Chipset (ATX) Serial ATA	$189.99
Asus P4T533-C, Socket 478, Intel i850e Chipset (ATX)	$234.99
ECS P4S5A/DX+, Socket 478, SiS 645 Chipset w/ Lan & Sound	$99.99
ECS P4S5MG/650+, Socket 478 (MATX) w/ Video, Sound & Lan	$99.99
ECS P6STMT, Socket 370 (MATX) w/ Video, Sound & Lan	N $89.99
Soyo SY-P4X400 DRAGON Ultra Platinum Edition	N $224.99
Tyan S1854, FC-PGA & Slot 1, Via 133 Chipset (ATX)	$149.99

Full List of Motherboards available on our Website

Premier Soundcards & Speakers

SoundBlaster PCI 128	$29.99
SoundBlaster LIVE Value 5.1	$49.99
SoundBlaster Audigy Value	$94.99
SoundBlaster Audigy Platinum	B $214.99
SoundBlaster Audigy 2	B $179.99
SoundBlaster Audigy 2 Platinum	B $269.99
SoundBlaster Extigy	B $214.99
Altec Lansing AVS-200 w/ 2 Speakers	$24.99
Altec Lansing AVS-300 w/ 2 Speakers & Subwoofer	$39.99
Altec Lansing AVS-500 w/ 4 Speakers & Subwoofer	$64.99
Altec Lansing 5100 w/ 5 Speakers & Subwoofer	N $214.99
Creative Inspire 2.1 2500 w/ 2 Speakers & Subwoofer	$69.99
Creative Inspire 4.1 4400 w/ 4 Speakers & Subwoofer	$84.99
Creative Inspire 5.1 5200 w/ 5 Speakers & Subwoofer	$109.99
Creative Inspire 6.1 6600 w/ 6 Speakers & Subwoofer	$164.99

Premier CD/DVD-ROM & RW Drives

Sony 52X CD-ROM Drives (7.8MB/Sec)	$34.99
Pioneer / Sony / Toshiba 16X DVD-ROM Drives (Beige)	$59.99
Samsung 16X DVD-ROM Drive (Black)	$69.99

Full List of Drives Available Online

Plextor Plexwriter CD-Re-Writer (48x/24x/48x)	$154.99
Panasonic CD-Re-Writer w/ Burn-Proof (40x/12x/40x)	$94.99
Samsung CD-Re-Writer w/ Burn-Proof (40x/12x/48x) (Black)	$84.99
Sony CD-Re-Writer w/ Burn-Proof (48x/12x/48x) (Beige)	$79.99
Sony CD-Re-Writer w/ Burn-Proof (48x/12x/48x) (Black)	$99.99
Sony CD-Re-Writer w/ Burn-Proof (52x/24x/52x) (Beige)	N $99.99
Yamaha CD-Re-Writer w/ Burn-Proof (44x/12x/44x) T@2 Tech	$159.99
Pioneer DVR-A05 (DVD-R/RW & CD-R/RW)	$424.99

Premier Video Cards

Asus v8170/DDR/SE GeForce 4 MX440 64Mb DDR TV-Out	NB $99.99
Asus v9180/TD GeForce 4 MX440-8x 64Mb DDR TV-Out	B $134.99
Asus v9180/VS GeForce 4 MX440-8x 64Mb DDR VIVO	B $179.99
Asus v9200/TD GeForce 4 Ti4200-8x w/ 128Mb DDR	B $239.99
Asus v9280/S GeForce 4 Ti4200-8x w/ 128Mb DDR	NB $324.99
ATI Xpert 2000 Pro w/ 32Mb SDRAM AGP	$44.99
ATI Radeon 7000 w/ 64Mb SDRAM AGP w/ Video Out (Sapphire)	$69.99
ATI Radeon 9000 w/ 128Mb DDR AGP w/ Video Out (Sapphire)	$134.99
ATI Radeon 9000Pro w/ 128Mb DDR AGP w/ Video Out (Sapphire)	$154.99
ATI Radeon 9100 w/ 64Mb DDR AGP w/ Video Out (Sapphire)	N $124.99
ATI Radeon 9500 w/ 128Mb DDR AGP w/ Video Out (Sapphire)	N $249.99
ATI Radeon 9500Pro w/ 128Mb DDR AGP w/ Video Out (Sapphire)	N $274.99
ATI Radeon 8500Pro w/ 128Mb DDR AGP w/ Video Out	S $299.99
ATI Radeon 9700 w/ 128Mb DDR AGP w/ Video Out (Sapphire)	N $349.99
ATI Radeon 9700Pro w/ 128Mb DDR AGP w/ Video Out (Sapphire)	$489.99
ATI Radeon 9700Pro w/ 128Mb DDR AGP w/ Video Out	B $524.99
ATI All-In-Wonder Radeon 7500 w/ 64Mb AGP DDR	$189.99
ATI All-In-Wonder Radeon 8500DV w/ 64Mb AGP DDR	$259.99
ATI All-In-Wonder Radeon 9700Pro w/ 128Mb AGP DDR	NB $624.99
Leadtek WinFast Geforce4 A260 LE TD w/ 128Mb VIVO	B $294.99

Full List of Video Cards Available Online

ATI TV Wonder PCI / USB	B $99.99 / $124.99
Leadtek WinFast TV 2000 XP - TV & FM Tuner	B $99.99

Premier Fax Modems

56K Int. (v.90) AMR	$14.99
Rockwell 56K Int. w/ Voice (v.90) PCI	$19.99
US Robotics 56k Int. PCI WinModem / Hardware	$29.99/$79.99

Premier Networks

Smartlink 10/100Mbit Ethernet Card	$14.99
D-Link 10/100Mbit Ethernet Card	B $19.99
3COM 10/100Mbit Ethernet Card w/ Wake on Lan	$49.99
Linksys 10/100 Ethernet USB Adapter	B $29.99
Linksys WMP11 - 802.11b Wireless Adapter PCI	B $109.99
Linksys WPC11 - 802.11b Wireless Adapter PCMCIA	B $94.99
Linksys WUSB11 - 802.11b Wireless Adapter USB	B $94.99

Cables, Ends and Adapters are also available

SMC 10/100Mbit - 5 Port Hub	B $49.99
Linksys BEFSR41 Cable/xDSL Router - 4 Port	B $94.99
Linksys BEFSR81 Cable/xDSL Router - 8 Port	NB $129.99
Linksys BEFW11S4 Wireless Cable/xDSL Router - 4 Port	NB $169.99
SMC Barracade Cable/xDSL Router - 4 Port	B $114.99

Premier Cooling Supplies

Thermaltake Volcano 6 CU / CU+	$14.99/$14.99
Thermaltake Volcano 7 / 7+ w/ Variable 80mm fan	$24.99/$44.99
Thermaltake Volcano 9 - w/ Variable 80mm Fan	$28.99
Thermaltake Volcano 9 Cool Mod - w/ Variable 80mm Fan	N $44.99
Thermaltake Aquarius II - Liquid Cooling Kit	NB $184.99
Thermaltake Case Fans 60mm/80mm/80mm Smart Fan	$9.99/$9.99/$19.99
Vantec Stealth 80mm Case Fan	$19.99
80mm Case Fans w/ Blue/Red LEDs or 4-Color LEDs	$19.99
Arctic Silver III Thermal Paste	$9.99
Removable Hard Drive Rack w/ Fan	$24.99

Full List of Cooling Supplies Available Online

Premier Cases

Mid Tower Case w/ 6 Drive Bays (ATX) 350W Max (250W)	$44.99
Premium Mid Tower Case w/ 6 Bays (ATX) 300W	$74.99
Enlight Desktop Tower Case w/ 7 Bays (ATX)	$64.99
Enlight Mid Tower Case w/ 7 Bays (ATX)	$59.99
Enlight MicroATX Tower Case w/ 6 Bays (MATX) 200W	N $74.99
Enlight Mid Tower Case w/ 7 Bays (ATX) 300W	$89.99
Enermax CS-3051L Mid Tower Case w/ 10 Bays (ATX)	$89.99
Magic Tower Case w/ 9 Drive Bays (ATX)	$74.99
Nest Tower Case w/ 7 Drive Bays (ATX) Window	$94.99
AOpen Full Tower Case w/ 13 Bays (ATX) 300W	$119.99

Full Line of Thermaltake & LianLi Available - Pricing Online

Thermaltake A5000 Steel Tower Case w/ 10 Bays (ATX)	$164.99
Thermaltake A5000A Steel Tower Case w/ Window (ATX)	$189.99
Thermaltake A6000 Aluminum Tower Case w/ 10 Bays (ATX)	$209.99
Thermaltake A6000A Aluminum Tower Case w/ Window (ATX)	$234.99
LianLi PC-60USB Aluminum Case (ATX)	$189.99
LianLi PC-61USB Aluminum Case (ATX)	$229.99
LianLi PC-6089 Aluminum Case (ATX)	$199.99

250W - 520W Power Supplies Available - Pricing Online

Enermax 365W Power Supply w/ 2 fans	B $69.99
Enermax 465W Power Supply w/ 2 fans	B $114.99
Vantec 520W Black Aluminum Power Supply w/ 2 fans	B $174.99

Premier Barebones

Shuttle SS51G (Socket 478) w/ SiS651 Chipset	NB $434.99
Shuttle SB51G (Socket 478) w/ Intel 845pe Chipset	NB $494.99
Shuttle SN41G2 (Socket A) w/ NVidia nForce2 Chipset	NB $534.99

ECS CELERON UPGRADE BUNDLE — See Web Site

Intel Celeron CPU (Socket 478) — 1.7-Ghz -
ECS P4S5A Motherboard w/ SiS 645 — 1.8-Ghz -
Mid-tower Case w/ 250W Power Supply — 2.0-Ghz -
256MB 168Pin SDRAM @ PC133 — 2.2-Ghz -

ABIT ATHLON UPGRADE BUNDLE — See Web Site

Original AMD Athlon XP CPU — 2000+
Thermaltake Volcano 7 Heat Sink & Fan — 2200+
Abit KD7 Motherboard w/ Via KT400 Chipset — 2400+
Premium Mid-tower Case w/ AMD Approved P/S — 2600+
256MB 184Pin DDR Ram @ PC2100

ABIT P4 UPGRADE BUNDLE — See Web Site

Intel Pentium 4 CPU (Socket 478) w/ 512k — 2.0A -
Abit BE7 Motherboard w/ Intel 845ep Chipset — 2.4B -
Enlight Mid-Tower Case w/ 7 Drive Bays & 300W P/S — 2.5B -
512MB 184Pin DDR Ram @ PC2100 — 2.6B -

All bundles come with a CPU, Heat Sink & Fan, Memory, Motherboard and Case to upgrade your existing system. Sorry, but there are no substitutions on bundles. Please note that pricing changes as memory and CPU pricing changes.

Premier Computer Canada
COMPUTERS - COMPONENTS - SERVICE

ALL PRICING HAS BEEN 2% INTERAC OR CASH DISCOUNTED!

STORE HOURS:
MON-FRI: 10AM-7PM
SATURDAY: 10AM-6PM
SUNDAY: CLOSED

3311 LAKESHORE BLVD W.
WEST OF KIPLING ON THE SOUTH SIDE OF LAKESHORE
TEL# (416) 251-2215
FAX# (416) 251-2218

B - Retail Box
S - Special Order
N - New Product This Month

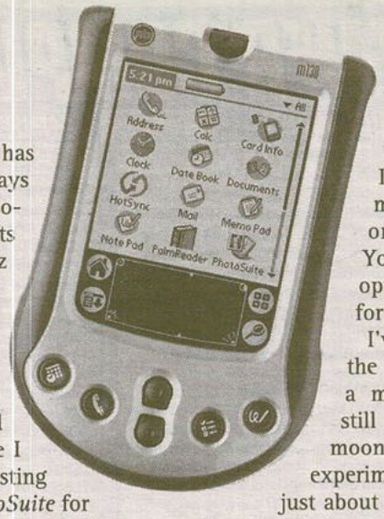
WWW.PCCANADA.COM
-Up-to-date pricing and stock
- Secure ordering Canada wide

PRICING IS SUBJECT TO CHANGE WITHOUT NOTICE. WE RESERVE THE RIGHT TO LIMIT QUANTITIES OR CORRECT PRICING WITHOUT NOTICE. SOME ITEMS MAY BE AVAILABLE ONLY ON SPECIAL ORDER. INSTALLATION IS NOT INCLUDED. PRODUCTS ARE O.E.M. UNLESS OTHERWISE STATED. 25% RESTOCKING CHARGE MAY BE APPLIED TO COMPONENTS, AND SPECIAL ORDERS RETURNED FOR EXCHANGE OR REFUND. LEASE NUMBERS ARE BASED ON A 36 MONTH TERM.

Moving from paper to Palm

By NESTOR GULA

I have a very eclectic way of staying organized. (Some people would challenge this statement, saying that I'm unorganized, but that's just outside opinion now, ain't it.) I used to rely mainly on my brain. My back-up was a day-timer – (which I frequently used to write things into but rarely used to check) and notes written on diverse scraps of paper, bits of envelopes, torn corners of sheets of paper, and when I still smoked, pieces of cigarette packages and matchbook covers. Since I've been married, I rely on my wife to remember the really critical things. For the most part, I was on time and never forgot to do things. About a year ago, I started having more and more things on my plate and I began carrying more notes around and having briefing sessions with my wife. Realizing that I was probably never going to use a paper day-timer the way it was intended, I decided to go electric and try out a PDA. There are two meanings to the acronym PDA – personal or portable digital assistant. Whatever the case, I decided to try out the Palm m130 for several reasons, the biggest of which is that it is fully expandable with a host of accessories (like keyboards, wireless modems or Bluetooth adapters) and expansion cards (like the Dictionary/Thesaurus Card, Travel Cards of cities in the U.S., Europe or Asia-Pacific and memory cards.) There's only one Palm that is less expensive and has all the expandability – the monochrome m125. I initially wanted a monochrome Palm because the batteries last longer than in a colour Palm. But after a bit of thought I realized that the colour screen gives a lot more functionality to the PDA. The m130 also offers a $100 rebate until Feb. 3 that makes its price a more affordable $299.99.



The m130 is one of the bigger Palms, at 12.2x7.9x2.3 cm (4.8x3.1x0.9 in.) and weighs 153 g (5.4 oz.). It has 8 MB of memory and displays thousands of colours at a resolution of 160x160 pixels. Its processing speed is 33 MHz but you are not buying this type of unit for its number crunching capability. It connects to a computer with a USB cable and is compatible with both PCs and Macs, which is great because I use both. It has some interesting software included: *MGI PhotoSuite* for viewing picture files and creating slide shows, as well as *Documents to Go*, which lets the user manipulate *Word*, *Excel* or *PowerPoint* files on the Palm. Colour will come in handy for these applications. There's also an eBook reader and some other software that lets you use the Internet and mobile services on your Palm. You need the optional modem for this, though.

Realizing that I was probably never going to use a paper day-timer the way it was intended, I decided to go electric

I've been using the Palm for about a month now. I'm still in the honeymoon phase of this experiment. I carry it just about everywhere and I write most everything down. I also check it quite often. It even has an alarm, which you can activate for events in your date book – it tells you to look at it. It is very easy to use – I was using it for a while before I decided to look at the manual. I find Graffiti (the special way to enter text into you, Palm if you don't want to hunt and peck for letters) pretty easy to use. I have yet to start using the additional software packages and to enter all my addresses and contact info. I can't say it has revolutionized my life, but it has given it a new dimension. ◆

MICROPOINT COMPUTERS

All Prices are Already 4% Cash Discounted and Subject to Change Without Notice

THORNHILL (BATHURST / YONGE ST.) — STEELES AVE.W. / FINCH AVE.W.
180 STEELES AVE.W. #30 (Steeles Square)
TEL 905-762-9811, FAX 905-762-9812
Mon-Fri 11:30-7:30, Sat-Sun 11:00-6:00

RICHMOND HILL (BAYVIEW / LESLIE ST.) — HYW. 7 EAST / HYW. 407
550 HYW. 7, EAST, # 88 (TIMES SQUARE)
TEL 905-764-5562, FAX 905-764-5650
Mon-Fri 11:30-7:30, Sat-Sun 11:00-6:00

MARKHAM (WOODBINE / WARDEN) — 14TH AVE. / DENISON ST. / STEELES AVE. E.
920 DENISON ST. UNIT 1, MARKHAM
TEL 905-470-6111, FAX 905-470-6112
Tue-Sat 11:30-6:00, Sun-Mon: Closed

$369
CELERON 1.2 GHZ
PENTIUM-III MAINBOARD
128 MB SDRAM PC-133
30 GB HDD ATA100
SIS 630 VIDEO ONBOARD
6 CHANNEL SOUND
52X CD-ROM / 1.44 FDD
10/100 ETHERNET ONBOARD
180W SPEAKER
PS/II KEYBOARD / MOUSE
ATX MID TOWER CASE

$399
CELERON 1.7 GHZ
ECS P4S5MG/GL+ M/B (USB 2.0)
128MB SDRAM PC-133
30 GB HDD ATA133
SIS 32MB VIDEO SHARED
SOUND ONBOARD
52X CD-ROM / 1.44 FDD
10/100 ETHERNET ONBOARD
180W SPEAKER
PS/II KEYBOARD / MOUSE
ATX 300W TOWER CASE

$579
PENTIUM-4 1.7 GHZ
P4 Mainboard (533Mhz,USB2.0)
256MB SDRAM PC-133
40 GB HDD ATA133
SIS 64MB VIDEO CARD
SOUND ONBOARD
52X CD-ROM / 1.44 FDD
10/100 ETHERNET ONBOARD
180W SPEAKER
PS/II KEYBOARD / MOUSE
ATX 300W P4 CASE

$319
VIA 1.0 GIGA PRO
PENTIUM-III MAINBOARD
128 MB SDRAM PC-133
30 GB HDD ATA133
VIA VIDEO ONBOARD
4 CHANNEL SOUND
52X CD-ROM / 1.44 FDD
10/100 ETHERNET ONBOARD
180W SPEAKER
PS/II KEYBOARD / MOUSE
ATX MID TOWER CASE

$339
AMD DURON Pro 1300+
ECS K7SEM MAINBOARD
128 MB SDRAM PC-133
30 GB HDD ATA133
SIS 730 VIDEO ON BOARD
SOUND ONBOARD
52X CD-ROM / 1.44 FDD
10/100 ETHERNET ONBOARD
180W SPEAKER
PS/II KEYBOARD / MOUSE
ATX MID TOWER CASE

$439
AMD ATHLON XP 1700+
ECS K7S5A (SD&DDR) M/B
128 MB SDRAM PC-133
30 GB HDD ATA133
SIS 32MB VIDEO CARD
SOUND ONBOARD
52X CD-ROM / 1.44 FDD
10/100 ETHERNET ONBOARD
180W SPEAKER
PS/II KEYBOARD / MOUSE
ATX MID TOWER CASE

MONITOR

SAMSUNG	
17" 753DF	$199
19" 955DF	$359
15" LCD 151S	$475
17" LCD 171S	$735
VIEWSONIC	
17" G70F	$259
15" LCD VE500	$495
17" LCD Vg700	$759
NEC	
19" AS95F	$345
15" LCD 1550V / BK	$499
17" LCD 1700V / BK	$809
MONTHLY SPECIAL	
17" MONITOR	$165
15" LCD	$399
17" LCD	$689

HARD DRIVE

MAXTOR / SAMSUNG / WD	
30GB/40GB 7200RPM	$99/$115
60GB/80GB 7200RPM	$135 / 165
120GB 7200RPM	$239
60G/80G 7200RPM 8M	$169/$195
QUANTUM SCSI 10000 RPM	
18GB / 36GB	$275 / 329

DVD/CD-RW

16X DVD	$59
LG 48X24X48 CD-RW	$79
LG 52X24X52 CD-RW	$99
LG 32X10X40X16 CDRW+DVD	$119
LG DVD-RW	$359
TOSHIBA DVD-RW	$359
Pioneer 104 DVD-RW	$399
Pioneer A05 DVD-RW	$445

PRINTER

EPSON C42UX (2880X720)	$65
CANON I320 (2400X1200)	$99
HP Deskjet 3420V (4800X1200)	$99
LEXMARK Z25 (1200X1200)	$79
LEXMARK X83 all-in-one	$195
LEXMARK E210 LASER	$279
OKIDATA OL 410E LASER	$199
SAMSUNG ML-1210 LASER	$279
MUSTEK 1200U SCANNER	$69
BEN-Q 4300U SCANNER	$75

NETWORK

10/100 BASE LAN CARD	$10
D-Link DI-604 4 Port Router	$75
D-Link DI-704P 4 Port Router	$95
LINKSYS 4 Port Router	$109
NETWORK CABLE	$0.30 / FOOT

Monthly Special

1 $699
INTEL PENTIUM-4 1.7 GHZ
17" MONITOR
256MB SDRAM PC-133
30 GB HDD ATA133
SIS VIDEO SHARED
SOUND ONBOARD
52X CD-ROM / 1.44 FDD
10/100 ETHERNET ONBOARD
180W SPEAKER
PS/II KEYBOARD / MOUSE
ATX 300W TOWER CASE

2 $649
AMD ATHLON XP 1800+
17" MONITOR
256MB SDRAM PC-133
30 GB HDD ATA133
SIS 64MB VIDEO CARD
SOUND ONBOARD
52X CD-ROM / 1.44 FDD
10/100 ETHERNET ONBOARD
180W SPEAKER
PS/II KEYBOARD / MOUSE
ATX 300W TOWER CASE

UPGRADE KITS

P-4 1.7 GHZ CPU
ECS P-4 M/B (533MHZ/USB 2.0)
SOUND & LAN ONBOARD
256 MB SDRAM PC-133
ATX 300W TOWER CASE
----------$369

AMD ATHLON XP 1800+ CPU
ECS K7S5A MAINBOARD
SOUND & LAN ONBOARD
256 MB SDRAM PC-133
ATX 300W TOWER CASE
----------$289

$689
PENTIUM-4 1.7 GHZ
ASUS P4SE MAINBOARD
256MB DDR266 RAM
40 GB HDD ATA133
GeFORCE 2 MX-400 64M 4X
SOUND ONBOARD
40X10X40 CD-RW/1.44 FDD
10/100 NETWORK
Keyboard & Wheel Mouse
ATX 300W CASE / SPEAKERS
* ASUS P4S533 ---------- +$40

$569
AMD ATHLON XP 1800+
ECS K7S5A (SD&DDR) M/B
256 MB DDR266 RAM
40 GB HDD ATA133
SIS 64MB VIDEO CARD
SOUND ONBOARD
40X10X40 CD-RW / 1.44 FDD
10/100 ETHERNET ONBOARD
180W SPEAKER
PS/II KEYBOARD / MOUSE
ATX MID TOWER CASE

VIDEO CARD

SIS 32MB VIDEO CARD	$35
SIS XABRE 400 64M AGP8X tv	$115
GEFORCE 2 MX-400 64M	$55
GEFORCE 4 MX-440 64M tvout	$79
ATI Radeon 7500 64M tvout	$85
ATI Radeon 9000 64/128M tv	$109/149
ATI Radeon 9700 Pro 128M tvout	$509
ATI All-in-w Radeon 7500 64M	$189
ATI All-in-w Radeon8500DV 64M	$289
ATI All-in-w Radeon 8500 128M	$409
MSI Geforce 3 TI-200 128M tvout	$179
MSI Geforce 4 Ti-4200 128M 8X	$299
MSI Geforce 4 Ti-4600 128M tv	$389
MSI TV@nywhere TV TUNER	$89
ASUS V8420 GF4 TI-4200 128M	$279
ASUS V8460 GF4 TI-4600 128M	$439
Leadtek TV-2000XP TV TUNER	$99

$779
PENTIUM-4 2.0 GHZ
MSI 845E MAX 533MHZ M/B
256 MB DDR266 RAM
40 GB HDD ATA133
GeFORCE 2 MX-400 64M 4X
SOUND ONBOARD
40X10X40 CD-RW / 1.44 FDD
10/100 NETWORK CARD
Keyboard & Wheel Mouse
ATX 300W CASE / SUBWOOFER
* ASUS P4PE ---------- +$60

$629
AMD ATHLON XP 2000+
ASUS A7S333 M/B
256 MB DDR RAM PC-2100
40 GB HDD ATA133
GEFORCE 2 MX-400 64 MB 4X
SOUND ONBOARD
40X10X40 CD-RW / 1.44 FDD
10/100 NETWORK CARD
600W SUBWOOFER SPEAKER
Keyboard & Wheel Mouse
ATX MID TOWER CASE

ECS LAPTOP
TOP QUALITY HOT PRICE

I-BUDDIE A900 $969
14.1" TFT / VIA 1.0 GIGA PRO
256M / 10G HDD / DVD-ROM
MODEM/LAN/4 USB/TV OUT

I-BUDDIE A901 $1089
14.1" TFT / CELERON 1.2 Ghz
256M / 10G HDD / DVD-ROM
MODEM/LAN/4 USB/TV OUT

$989
PENTIUM-4 2.0 GHZ
Samsung 17" 753DF Flat Monitor
ECS Mainboard (533MHz / USB2.0)
512MB SDRAM PC-133 HOT
60 GB HDD 7200RPM
48X16X48 CD-RW / 1.44 FDD
GEFORCE 4 MX-440 64M TVOUT
SOUND & LAN ONBOARD
Internet KB & Wheel Mouse
ATX 350W CASE / SUBWOOFER
* P4 2.4 GHZ ---------- +$60

$919
AMD ATHLON XP 2000+
Samsung 17" 753DF Flat Monitor
ECS K7S5A (SD&DDR) M/B
512MB SDRAM PC-133 HOT
60 GB HDD 7200RPM
48X16X48 CD-RW/16X DVD
GEFORCE 4 MX-440 64M TVOUT
SOUND & LAN ONBOARD
Internet KB & Wheel Mouse
ATX 350W CASE / SUBWOOFER
* XP 2100+ ---------- +$20

I-BUDDIE A928 $1369
14" TFT / INTEL P4 1.7 Ghz
256M DDR / 20G / DVD+CDRW
modem/lan/USB2.0/TV/firewire
(P4 2.0Ghz ---------- + $60)

I-BUDDIE A928 $1449
15" TFT / INTEL P4 1.7 Ghz
256M DDR / 20G / DVD+CDRW
modem/lan/USB2.0/TV/firewire
(40 GB HDD---------- +$90)

I-BUDDIE A929 $1319
14" TFT / AMD XP 1800+
256M DDR / 20G HDD / DVD
modem/lan/USB2.0/TV/firewire
(AMD XP 2000+ ---------- + $30)

2582414

Turning students into info scavengers

By HAROLD LASS

Ever been on a scavenger hunt? You know, where you have to race all over the place to be the first to grab all the lunatic loot on your list. Well, WebQuests are the cyber equivalent of a scavenger hunt. While there's no racing or loot involved, that doesn't mean it can't be fun and (here comes that "e" word) educational. The Web is the world's largest virtual community, and through the use of WebQuests, teachers and parents can help students find and explore its treasures.

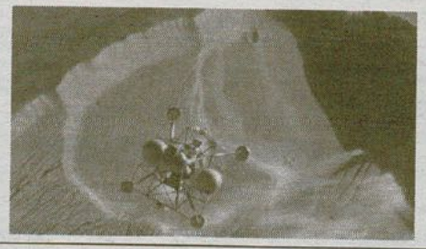
Interested in leaving Earth? How about an orbital WebQuest? At "A City in Space" (projects.edtech.sandi.net/mission/iss), you begin your quest as a colonist on the International Space Station (ISS). Of course, to qualify for the mission, you must undergo a rigorous orientation program to familiarize you with space. Up there, just opening the wrong hatch could prove fatal. By researching answers to questions in a series of activities, you'll learn a lot about life on the ISS – even down to what meals astronauts eat (like "thermostabilized chicken and irradiated beef enchiladas"). Or, if distance isn't an issue, you could investigate the possibility of homesteading Mars in 2030 (students.itec.sfsu.edu/itec815_s99/mdeschamp/index.html).

But you don't have to leave planet Earth for a worthwhile WebQuest. Canada's a good place to start. Many of us know little about people of Chinese, European and Aboriginal background and their contributions to Canadian culture. At "Preserving, Understanding and Transmitting Canadian Culture" (schools.sd68.bc.ca/coal/pg/canada), you can participate in quests aimed at reducing racism through knowledge of cultures that make up the Canadian mosaic. Are you aware of the valuable contribution First Nations people made to the construction of roads and railways in early Canada?

WebQuests have recently become a popular tool for teachers and parents to guide student learning on the Internet, and they're easy to construct once you've identified a topic of interest. A quest consists of an introduction (provides some background information about the subject or task), a task (what you hope participants will accomplish by going on the quest), a process (the steps required to complete the task), resources (a list of Web pages to visit to help complete the task), a conclusion (a reminder of what's been learned on the quest) and an evaluation (for teacher assessment).

If you're having trouble coming up with an introduction or a task, try the included checklist for helpful hints: www.ozline.com/webquests/checklist.html. Teachers will find a template for building their very own WebQuest at www.spa3.k12.sc.us/WebQuestTemplate/webquesttemp.htm. Simply complete it and let the quest begin. ◆

WebQuests have recently become a popular tool for teachers and parents to guide student learning on the Internet



Bright Oceans Inter-Telecom Corporation Canada Branch

KEIT Computers

Address: 2022 Sheppard Ave. East (at Sheppard & Brian Dr.)
MON-FRI: 10:30-19:00 SAT: 11:30-16:00 SUN: CLOSED
Email: keit_computer@on.aibn.com www.keitcomputer.com
Tel: (416) 493-3300
Fax: (416) 493-3308

HWY 404 · Finch Ave. · Brian Dr. · Victoria Park · Sheppard Ave.

We promise if any part has a problem in warranty we will exchange it with a new one (except physically damaged&Monitor&printer) 1 year parts & 3 years labor warranty on Hardware.

Intel Celeron 1G $349
Celeron1.1G/1.2G/1.3G $359/369/389
Celeron1.4G/P3-1G $409/469

AMD Duron900 $339
Duron 1.3G/T.B 1.1 G $359/369
XP1600/1700/1800 $369/379/399
Houston M758 MB or M810
128M PC-133 SDRAM& Speaker
64M Video&56K Modem (On Board)
40GB HD&1.44M FD&52X CDROM
16Bit Sound&Network Card (On Board)
ATX MID TOWER CASE 300W
Keyboard & MOUSE &PAD
change Mainboard to MSI 694T-Pro.....+70

AMD TB 1.1G $389
XP1700/1800/1900 $419/439/449
XP2000/2100/2200 $479/509/609
Duron900/1.3G $379/399
ECS K7S5A
128MB PC-133 sdram& Speaker
32M 4X AGP &1.44M FD
40GB HDD & 52X CD-ROM
1Bbit Sound&Network Card(On Board)
56K Modem pci & ATX 300W CASE
Keyboard&Mouse &Pad
change 128PC133 to 256PC133.....+30

Intel Celeron 1.7G $389
Intel P4 1.7 Ghz $489
C-1.8G/C-2.0/P4 1.8 $409/429/509
P4-1.9/2.0/2.4 $529/539/599
PC-Chips M 925 MB w/ 128mb pc133
32mb Video & 56K modem (on board)
40GB HDD &1.44M FD
52X CD-ROM & Speaker
16Bit Sound&Network card(On Board)
ATX 300W Case&K/B&Mouse&Pad
change mainboard to ECS P4VXASD2...+30

AMD XP 1700 $539
TB1.1/XP1800/1900 $499/559/569
XP2000/2100/2200 $599/629/729
ECS K7S5A MainBoard
256MB Pc133 SDR RAM
32M Video Card 4X AGP
40GB HDD& 1.44M FD
16x DVD & 48x16x48 CDRW
16Bit Sound(On Board)& 56k modem
ATX MID TOWER CASE 300W
Keyboard & Mouse & Pad & Speaker
change 256 mb to 512 mb.....+$50

Intel P4-1.7G $629
P4-1.8G/1.9G $649/669
P4-2G/2.4G/2.53G$679/739/799
ECS P4VXASD2+ MB
256MB PC-133 SD RAM
32M Video Card 4X AGP
40GB HDD & 1.44M FD&56k modem
16X DVD & 48x16x48 CD-Writer
16Bit Sound&Network card(On Board)
ATX MidCase 300W& Speaker
Keyboard&MOUSE&Pad
change 256PC133 to 512PC133.....+$50

AMD XP 1700 $579
TB1.1G/XP1800/1900 $539/599/609
XP2000/2100/2200 $639/669/769
Asus A7S333 MB
256MB Pc2100 DDR Ram
32M Video Card 4X AGP
40GB HDD &1.44M FD &56k modem
16X DVD & 48x16x48 CD-Writer
16Bit Sound&Network Card(On Board)
ATX MidCase 300W &Speaker
Keyboard&MOUSE&Pad
change 256PC133 TO 512PC133..+50

Intel P4-1.7G $709
P4-1.8G/1.9G $729/749
P4- 2G/2.4G $759/819
ASUS P4B MB
256MB PC-133 SD RAM
GeForce2 64MB Video Card
40GB HDD & 1.44M FD&56k modem
16X DVD & 48x16x48 CD-Writer
16Bit Sound & Network card(On Board)
ATX MidCase 300W& Speaker
Keyboard&MOUSE&Pad
change 256PC133 to 512PC133.....+$50

AMD XP 1800 $639
XP1700/1900/2000/2100 $619/649/659/689
XP2200/2400/2600/2700 $789/819/979/1069
ASUS A7V333-XL MB
256MB Pc-2100 DDR RAM
GeForce2 64MB Video Card
40GB HDD & 1.44M FFD
16X DVD &48x16x48 CD-Writer
16Bit Sound(On Board)&56K Modem
ATX MidCase 300W & Speaker
Keyboard & Mouse & Pad
change mainboard to Asus A7A266.....+$40

Intel P4 1.7G $699
P4-1.8G/1.9G/2G$719/739/$749
P4-2.4G/2.53G/2.6G $799/859/949
ASUS P4SE MainBoard
256M Pc-2100 DDR RAM
GeForce2 64MB Video Card
40GB HD&1.44M FD &56K modem
16X DVD & 48x16x48 CD-Writer
16Bit Sound (On Board)
P4 300W MidCase & Speaker
Keyboard & Mouse & Pad
change DDR to PC-2700(333).....+$20
change MB to Asus P4S533E.....+$50

AMD XP 2000 $699
XP1700/1800/1900/2100 $659/679/689/729
XP2200/2400/2600/2700$829/859/1019/1109
ASUS A7V8X MB *(with new USB2.0)*
256MB Pc-2100 DDR RAM
GeForce2 64MB Video Card
40GB HDD & 1.44 M FFD
16X DVD & 48x16x48 CD-Writer
16Bit Sound(On Board) & 56K Modem
ATX MidCase 300W&Speaker
Keyboard & Mouse & Pad
change mainboard to with RAID .... +$50
change DDR to PC-2700(333).....+$20

Intel P4 1.7G $879
P4-1.8G/1.9G/2G $899/919/929
P4-2.4G/2.53G/2.6G$979/1039/1129
P4 2.8G/3.06G $1279/$1709
Asus P4T533-C MB
256MB PC-800 RamBus
GeForce2 64MB Video Card
40GB HDD& 1.44M FDD&Speaker
16x DVD & 48x16x48 CD-Writer
300w Case&16Bit Sound(On Board)
K/B & Mouse & Pad &10/100 NIC

Intel P4 2.4B $999
P4-1.7/1.8G/2G $899/$919/$959
P4-2.6/2.8/3.06 $1149/$1309/$1709
Asus P4B533 MainBoard
256MB PC-2700 DDR
ATI Radeon 9000 128MB DDR
60GB HDD&1.44 FDD& 10/100 NIC
16X DVD & 52x24x52 CDRW
ATX 300W P4 Case & Speaker
16bit SC(on board)&K/B&Mouse
Change MB to P4PE-R-GBL.....+70

MONITOR

15' NEC1550V/17' NEC1700V	459/759
18' NEC 1850E/19' 1920NX	980/1350
15' Samsung 151S white/silver	430/449
17' Samsung171S white/silver	709/710
18' Samsung181T/19' 191T	1300/1470
15' Viewsonic VE500/VX500	549/799
17' LG782LE	959
17' LEC 770	159
17' LG 700S/E700B	168/209
17' Samsung 750S/ 753DF	176/190
17' ViewsonicE70/E70F	190/229
17' ViewsonicE75/G75f	282/286
17' NEC AS75F/FE771	219/257
19' Aquaview 9LS/LG E900B	276/342
19' Samsung 950B/955DF	276/322
19' Viewsonic E90F/G90F	347/389
19' Viewsonic PF790/P95F+	490/419
19' NEC As90/Fe991/As95F	292/399/335
19' SONY G410R/G420S	579/619
21' Samsung 1100p+/1200NF	689/969
22' NEC AS120/FE1250+	689/929
22' ViewsonicG810/G220FB	739/769
22' Viewsonic P220F/P225F	899/1029

HARD DRIVE

MAXTOR	
40GB 5400rpm/7200rpm	111/116
60GB 5400rpm/7200rpm	125/126
80GB 5400rpm/7200rpm	140/150
120GB / 160GB 5400rpm	208/383
SEAGATE (7200rpm)	
40GB/60GB /80GB	123/127/147
Western Digital	
40GB 5400rpm/7200rpm	111/124
80/100/120(7200rpm)	150/210/230
40/80/120/200 (8mb)	132/170/291/539

CDROM&DVD

LG 52X/Sony 16x DVD	29/56
Artec 16X/LG 16X DVD	54/56
Pioneer16X tray	62

CD/DVD-WRITER

MSI 48x16x48(w/software)	67
LG 48x24x48/52x24x52(w/software)	69/85
Optorate 48x16x48	66
Sony 48x16x48(w/software)	75
LiteOn 52x24x52(Retail)	98
Plextor 48x24x48 (Retail)	179
Pioneer DVDRW A05 (Retail)	409

VIDEO CARD

ATI tv wonder/usb	96/99
SiS 32MB Video Card	25
Riva TNT2 32M 4xAGP	38
ATI Xpert128 16M PCI	53
ATI a-i-w Radeon7500/retail	175/185
ATI a-i-w Radeon8500 64m/128m	254/395
ATI Radeon7000 64M tv sdr/ddr	53/69
ATI Radeon7500 64M tv ddr/Re	83/135
ATI Radeon9000(oem) 64/128	105/133
ATI Radeon9000pro(re) 64/128	170/194
ATI Radeon9700pro oem/retail	503/540
Pine GeFroce2 64MB Video Card	45
Geforce2 64M Mx200tv/Mx400tv	67/77
Asus V9180 Magic/T MX440-8X	114
Asus V9180 TD MX440-8X	129
Asus V9180 Video Suite Mx440-8X	175
Asus V9280 64mb Gf4 8X AGP	199
Asus V9280 128mb Gf4 8X AGP	239
MSI GeForce4 Mx440 64M	99
MSI GeForce4Ti4200 128MB	249
MSI GeForce4Ti4800 128MB	390

***SPEAKERS ***

AltecLansing300w/500w	34/54
Creative Inspire 5.1 5200/5700	109/369

MAIN BOARD

Socket 370 (P3,Celeron)	
Houston 758(vga,audio,modem,lan)	75
MSI 694T-Pro	99
Socket 478 (P4)	
Asus P4B(sdr)/P4B266C(ddr)	141/139
AsusP4B533/P4B533E(ddr)	162/222
Asus P4T533C(rd)/P4T533R(rd)	245/260
Asus P4S333M/P4S533VM(ddr)	116/122
Asus P4SE(ddr)/P4S533E(ddr)	100/152
Asus P4S8X (ddr) AGP8X	200
Asus P4PE-R-GBL(I845PE, SATA Raid)	239
ECS P4VXASD2+	74
Pc-chips M925	89
Stocket A	
Asus A7S333(ddr)/A7V266E(ddr)	103/109
Asus A7V333-XL(ddr)/Raid(ddr)	125/195
Asus A7V8X (Audio,Lan,1394,Raid,DDR400)	215
ECS K7S5A / K7SEM	80/78
Houston M810(vga,audio,modem,lan)	76
Gigabyte GA7VAX/GA7VAXP	121/158
ABIT IT7 Max / Max II	210/259
MSI Kt4 Ultra/Ultra SR	155/180
SOYO K6 MainBoard	69

SOUND CARD

PINE 32bit PCI/ SB 128 PCI	10/22
SB Live 5.1/Audigy	43/89
SB Audigy MP3+/X-Gamer	132/132
SB Audigy 2/Platinum	178/267

FAX-MODEM

Pine 56K V92/INT/PCI	14
AOPEN 56K PCI SVV/PX	19/38
USR 56K Software/Hardware	28/68

NETWORKING

Smartlink 100/Dlink 100	10/14
3COM 905BTX-NM 10/100	44
Aopen 8ports HUB	49
Pine 4 ports Router	55
D-link 4 ports Routers (704P)	89

SCANNER

Canon 670U	139
BenQ 4300U	66
HP2300C/3500C/5300	99/169/265
Epson1260/1660/2450	135/255/539

For individual CPU and laptop item please call to check price and availability.

ECS Laptops
Intel P4-1.5/2.0/2.4 $1519/1599/1659
(15" TFT/20GB HDD/Lan/Modem 256MB DDR/DVD+CDRW Combo)
AMD XP1800/2000 $1409/1429
(14.1" TFT/20GB HDD/Lan/Modem 256MB DDR/DVD+CDRW Combo)
External Floppy Drive $59
Laptop HDD 20G/40G $149/229
USB EX-HDD 4G/10G $99/189

PRINTERS

Canon S330/S520/S750	115/125/145
Epson C42UX/C62/C82	62/133/219
Lexmark Z25/X75/X125	79/162/193
HP 3420V/3820V/5550	96/139/219
HP G85(all-in-one)	559
Brother HL1230/1440/1450	309/439/529
Samsung ML 1230/1250	269/349

All price already 4% cash discounted.
All price and availability subject to change without any notice.
Please call for product availability.

China · Hong Kong · San Francisco · New York · Uzbekistan · Toronto

22582714

15 Years in Business

550 Alden Rd., Unit #110
Markham, Ontario L3R 6A8
Tel: (905)470-1425 Fax: (905)470-9556

GREY TECH COMPUTER INC.

HARDWARE • SOFTWARE • ACCESSORIES

DIRECTIONS
4 LIGHTS NORTH OF STEELES
1 BLOCK WEST OF WARDEN
HOURS:
MON. - FRI. 9:00 a.m. - 6:00 p.m.
SAT. 10:00 a.m. - 2:00 p.m.

MOTHERBOARDS

SOCKET A (AMD)
ASUS A7N8X 189
ASUS A7N8X-DX 219
ASUS A7S333-WA 119
ASUS A7V-266-C-WA 109
ASUS A7V-266-E-AA 119
ASUS A7V-333-GD 179
ASUS A7V-333-WA 149
ASUS A7V-333-RAID 189
ASUS A7V-333-X 139
ASUS A7V8X-WL 169
ASUS A7V8X-GBL 209
ASUS A7V8X-L-1394 189

SOCKET 478 (PENTIUM IV)
ASUS P4BGL-VM-L 149
ASUS P4B533-E-L-R 229
ASUS P4B533-WA 169
ASUS P4B533-V-L 219
ASUS P4B533-VM-L 159
ASUS P4G8X-DX 319
ASUS P4PE-GBL-R 239
ASUS P4PE-L 189
ASUS P4PE-L-R 219
ASUS P4S333-VM-WA 129
ASUS P4S533E-WA-WL 159
ASUS P4S8X-WA-WL-G 209
ASUS P4T533 269
ASUS P4T533-C 249
ASUS P4T533-C-L 259

CASES

GREY-TECH
MID TOWER
GT-4JA6622 (400W / USB) 59
GT-4HL7 (350W) 49

ENLIGHT
#7237 MID TOWER w/extra fan 59

ANTEC
MINI
PLUS660AMG 179
PLUS1080AMG 209
PLUS1500B (550W) 749
SLK1600 (300W/USB) 89
SLK2600AMB (300W/USB) 99
SLK3700AMB (350W/USB) 129
FULL TOWER
PLUS1060 (330W/USB) 199
PLUSVIEW100 (CLEAR) 129
PERFORMANCE SERIES
SX600II 89
SX1000II 109
SX1040BII (400W/10BAY) 169
SX1400B 599
SX630II (300W/8BAY) 129
SX835II (350W/8BAY) 149

POWER SUPPLY

ANTEC
SOLUTION SERIES
SL350 (350W) 89
SL400 (400W) 99
SL450 (450W) 129
TRUE POWER SERIES
TRUE 330 (330W) 89
TRUE 430 (430W) 129
TRUE 480 (480W) 159
TRUE BLUE 480 (480W) 169
TRUE 550 (550W) 189

ENERMAX
EG365P-VEFMA (350W) 79
EG465P-VE (450W) 109
EG651P-VE (550W) 189

CPU

➢ ATHLON MP 266MHz
SOCKET A
ATHLON MP 2000 (1.67GHz) 259
ATHLON MP 2200 (1.80GHz) 349
ATHLON MP 2400 (2.00GHz) 379

➢ ATHLON XP 266MHz (RETAIL)
SOCKET A
ATHLON XP 1700+TBOEM(1.47GHz) 99
ATHLON XP 1800+TB (1.53GHz) ... 129
ATHLON XP 2100+TB (1.73GHz) ... 159
ATHLON XP 2200+TB (1.80GHz) ... WWW
ATHLON XP 2400+TB (2.00GHz) ... 309
ATHLON XP 2600+TB (2.13GHz) ... 469
ATHLON XP 2700+TB (2.17GHz) ... 549

➢ INTEL 400MHz (RETAIL)
SOCKET 478
INTEL CELERON 1.7GHz 99
INTEL CELERON 1.8GHz 129
INTEL CELERON 2.0GHz 149
INTEL CELERON 2.1GHz 159
INTEL CELERON 2.2GHz 189
INTEL P4-1.8AGHz w/512K 249
INTEL P4-2.0AGHz w/512K 279
INTEL P4-2.4AGHz w/512K 339

➢ INTEL 533MHz (RETAIL)
SOCKET 478
INTEL P4-2.4GHz w/512K 339
INTEL P4-2.53GHz w/512K 399
INTEL P4-2.66GHz w/512K 509
INTEL P4-2.8GHz w/512K 639
INTEL P4-3.06GHz w/512K 1069

UPGRADE KIT

Intel 1.7Ghz Celeron Processor
P4 Motherboard with USB 2.0
Onboard Video, Audio, & LAN
128mb DDR memory

$279

Installation not included. P4 power supply may be required.

SOUND CARDS

CREATIVE LABS
BLASTER 128 (PCI/OEM) 39
BLASTER LIVE DIGITAL 5.1 (OEM) 59
BLASTER AUDIGY (OEM) 109
BLASTER AUDIGY X-GAMER 139
BLASTER AUDIGY MP3+ 139
BLASTER AUDIGY2 (PCI) 189
BLASTER AUDIGY2 PLATINUM (INT) . 269
BLASTER EXTIGY (EXT/USB) 209

AMERICAN POWER UPS

(Backup/Recharge/Power Cap.)
BACK-UPS
BE350U (8/16HR/200W) 69
BE500U (11/24HR/300W) 99
BK500 (10/7HR/300W) 169
BK650MC (14/11HR/400W) 199
BACK-UPS PRO
BP280S (23/4HR/180W) 189
BP420S (13/4HR/260W) 299
BP500UC (13/7HR/315W) 179
BP650S (13/4HR/410W) 399
BP1000 (16/3HR/670W) 559
BP1400 (23/6HR/950W) 709
SMART-UPS
SUA750XL (50/3HR/600W) 659
SUA1000 (20/3HR/670W) 729
SUA1000XL (33/5HR/800W) 799
SUA1500 (24/3HR/980W) 949

SU420NET (15/5HR/390W) 329
SU620NET (13/5HR/260W) 429
SU700NET (18/3HR/450W) 509
SU2200NET (32/5HR/1600W) 1249
SU3000NET (18/5HR/2250W) 1829

EIDE DRIVES

WESTERN DIGITAL

7,200RPM
40.0 GB (400JB) 139
60.0 GB (600BB) 139
60.0 GB (600JB) 159
80.0 GB (800BB) 159
80.0 GB (800JB) 179
120.0 GB (1200BB) 229
120.0 GB (1200JB) 259
160.0 GB (1600BB) 389
180.0 GB (1800JB,8MB) 429
200.0 GB (2000BB) 439
200.0 GB (2000JB,8MB) 469

MAXTOR

7,200RPM
40.0GB (#6Y040L0) 139
60.0GB (#6Y060L0) 149
80.0GB (#6Y080L0) 169
120.0GB (#6Y120L0) 249
160.0GB (#6Y160L0) 349
160.0GB (#6Y160P0, 8MB) 389

EXTERNAL 1394/USB 2.0

5,400RPM
250GB (#S01J250) 709

FIREWIRE 7200RPM
120GB (#T01J120) 409

USB 5400RPM
40GB (#X01USB2040) 229
80GB (#V01J080) 299
120GB (#X01USB2120) 349

SEAGATE

5,400RPM
40GB (ST340810A) 119

7,200RPM
40GB (ST340016A) 129
60GB (ST360021A) 139
80GB (ST380021A) 169
120GB (ST3120023A) 249

SERIAL ATA
120GB (ST3120023AS, 8MB) 279

SCSI DRIVES

SEAGATE

CHEETAH

10,000RPM
36.6GB (ST-336607LW) 369
73.3GB (ST-373307LW) 839
146GB (ST-3146807LW) 1649

15,000RPM
18GB (ST-318453LW) 369
36GB (ST-336753LW) 599
73.3GB (ST-373453LW) 1169

EXTERNAL DRIVES

POCKET DRIVES (FW & USB)
30GB (4200RPM) #300136 379
40GB (4200RPM) #300353 419
60GB (5400RPM) #300190 639

FIREWIRE (IEEE1394)
40GB (7200RPM) #300508 D2 289
60GB (7200RPM) #300509 D2 309
80GB (7200RPM) #300510 D2 329
120GB (7200RPM) #300511 D2 399
160GB (7200RPM) #300512 D2 579
200GB (7200RPM) #300544 D2 639
250GB (7200RPM) #300582 D2 759
400GB (7200RPM) #300583 D2 .. 1249
500GB (7200RPM) #300584 D2 .. 1449

MONITORS

VIEWSONIC
17"
E70B 209
E70 209
E70F / E70FB ..... 249 / 249
E75F 279
G70F 259
G70FMB / G70FM ..... 289 / 289
G75F 299
P70F / P75F+ ..... 329 / 309
P75F+B 309
19"
E90 / E90F ..... 309 / 369
E90FB 369
E90FMB 389
E90F+SB 399
GS790 449
P95F+ 409
P95F+BK 409
21"
E220 699
G810 719
G220FB 759
22"
P220F 899
P220FB 899
P225FB 1009
P225F 1009
SAMSUNG
17"
750S 199
700NF 359
753DF 229
757MB / 763MB ..... 329 / 249
19"
900NF 499
950B 299
955DF 349
955DFB 349
21"
1100P+ / 1200NF ..... 679 / 929

LCD

SAMSUNG
15"
150MP 649
151SB / 151P ..... 459 / 649
151MP / 151SB ..... 839 / 459
151SS 459
152BB / 152BS ..... 519 / 519
152T / 152TS ..... 589 / 589
17"
170MP 959
171MP / 172T ..... 1189 / 909
171P / 171S ..... 989 / 759
171SB / 171SS ..... 759 / 769
18"
181T 1359
181TB 1359
191T / 191T-B ..... 1199 / 1199
VIEWSONIC
15"
VE155 / VE155B ..... 479 / 469
VE150MB / VE500 ..... 519 / 489
VG500 / VG500B ..... 559 / 549
VE510+ 599
VG150M / VG150MB ..... 549 / 549
VX500+ 619
17"
VE700 / VE175 ..... 749 / 749
VE170M / VE175B ..... 749 / 749
VE170MB / VG175 ..... 799 / 1069
VE170B 769
VG700 / VG700B ..... 869 / 859
VX700 / VG750 ..... 929 / 919
18"
VE800 929
VG800 / VG800B ..... 1059 / 1059
VG181 / VG181B ..... 1279 / 1259
VX800 1179
19"
VX900 / VG191 ..... 1349 / 1409
VG191B / VG900B ..... 1379 / 1239
20"
VP201M / VP201MB ..... 2149 / 2149
VX2000 2159
23"
VP230MB 4039
42" LCD PLASMA
VPW425 6299
50" LCD PLASMA
VPW505 11709

LASER PRINTERS

HEWLETT PACKARD
HP 1000 / 1200 (10ppm/1200 dpi) ..... 359 / 579
HP 1200N (15ppm/1200 dpi) 849
HP 1220 (15ppm/1200 dpi) w/scanner 749
HP 2200D / DT (19Ppm/1200dpi) 1149/1359
HP 2200DN / DTN (19ppm/1200dpi) 1639/1999
HP 4100N / 4100TN(25ppm/1200dpi) 2329/2699
HP 4200 / 4200N (35ppm/1200dpi) 1729/2479
HP 4200TN / 4200DTN (35ppm/1200dpi) . 2829/3199
HP 4200DTSN (35ppm/1200dpi) 3369
HP 4200DTNSL (35ppm/1200dpi) 3659
HP 4300 / 4300N (45ppm/1200dpi) 2229/2949
HP 4300TN / 4300DTN (45ppm/1200dpi) . 3299/3679
HP 4300DTSN (45ppm/1200dpi) 3829
HP 4300DTNSL (45ppm/1200dpi) 4089
COLOUR
HP 2500 / 2500L (16/4 ppm/600dpi) .... 1699 / 1449
HP 2500N / 2500TN (16/4 ppm/600dpi) 2149 / 2569
HP 4600 / DN (17/17 ppm/600dpi) ..... 3179 / 3799
HP 4600DTN / HDN (17/17 ppm/600dpi) 5129 / 5929
SAMSUNG
SAMSUNG ML1210 (12ppm/600dpi) 299
SAMSUNG ML1440 (15ppm/800dpi) 389
SAMSUNG ML1450 (15ppm/1200dpi) 429

VIDEO CARDS

ASUS
V8170 GEFORCE4 MX420 64MB 109
V9180TD-64 GEFORCE 4 MX440-8X 64MB 129
V9180VS-64 GEFORCE4 MX440-8X 64MB 189
V9280TD-64 GEFORCE4 Ti-4200-8X 64MB 219
V9280TD-128 GEFORCE4 Ti-4200-8X 128MB 249
V9280S/TD-128 GEFORCE4 Ti-4200-8X 128MB 349
ATI TECHNOLOGIES
RADEON ALL-IN-WONDER 7500 64MB AGP 199
RADEON ALL-IN-WONDER 8500DV 64MB AGP ... 299
RADEON ALL-IN-WONDER 8500 128MB AGP 419
RADEON 7500 64MB 139
RADEON 7500LE 64MB 99
RADEON 9000PRO 64MB / 128MB 179/209
RADEON 9500PRO 128MB 309
RADEON 9700PRO 128MB 559

PENTIUM 4 SPECIAL

- ❑ iNTEL **Pentium 4** 1.7Ghz processor
- ❑ **Gigabyte** motherboard (fully expandable)
- ❑ **Seagate** 40GB 7,200 rpm hard drive
- ❑ **128mb** DDR high-speed memory
- ❑ 256-bit graphics engine (>64mb SM)
- ❑ LG 700s **17" monitor** 1280x1024 @ 60Hz
- ❑ **USB 2.0** support. ATA133 support
- ❑ LG **52x CD Burner** with 2MB buffer
- ❑ **3D sound system** built in
- ❑ 10/100 **LAN** built-in for highspeed internet
- ❑ Mid tower case with **350 watt** supply
- ❑ Logitech **deluxe keyboard**
- ❑ Logitech **wheel mouse**
- ❑ Deluxe **stereo speakers**. AC powered

Computer Packages

Includes:
- ❑ *Panasonic* 1.44 Floppy Drive
- ❑ *High speed 333Mhz DDR memory*
- ❑ *Seagate* 60GB 7,200rpm hard drive
- ❑ Mid Tower Case with power supply
- ❑ *LG* 16X DVD-ROM Drive
- ❑ *Altec Lansing* AVS-200 Speakers
- ❑ *Logitech* mouse with wheel
- ❑ *Logitech* deluxe keyboard
- ❑ 10/100 LAN (built-in)
- ❑ 3D audio controller (built-in)
- ❑ *Microsoft* Windows XP HOME (CD/OEM)
- ❑ *2 Years* P & L Limited Warranty

CPU / VIDEO	CELERON 1.7GHz ASUS P4S533E (256MB DDR/350W)	PENTIUM P4 1.8Ghz ASUS P4S533E (256MB DDR/350W)	PENTIUM P4 2.4Ghz ASUS P4S533E (256MB DDR/350W)	PENTIUM P4 2.53Ghz ASUS P4S8X with Firewire & Raid (512MB DDR/350W)	AMD XP 2100+ ASUS A7V8X with Firewire & Raid (512MB DDR/350W)
VIEWSONIC 17" (P70F) ATI RADEON 7500LE 64MB	1249	1399	1569	1669	1419
VIEWSONIC 15" LCD (VE155) ATI RADEON 7500LE 64MB	1389	1549	1699	1819	1569
ENVISION 17" LCD (7100S) ATI RADEON 7500LE 64MB	1529	1669	1839	1959	1689

- Custom quotes available.
- Corporate P.O's welcome.
- **Leasing available.**
- All Grey-Tech systems come with limited 2 year parts and labour warranty.
- **Prices already cash discounted.** Any other form of payment will be cash discounted plus surcharge.
- Prices subject to change without notice.
- All products come with their respective Manufacturers Warranty.
- We ship across Canada

ORDER ON-LINE AT
www.greytech.com

** All trademarks and trade names are used to identify entities claiming the marks and names of their products. Grey-Tech Computer Inc. disclaims any interest in trademarks or trade names except its own.*

15 Years in Business

550 Alden Rd., Unit #110
Markham, Ontario L3R 6A8
Tel: (905) 470-1425 Fax: (905) 470-9556

GREY TECH COMPUTER INC.

HARDWARE • SOFTWARE • ACCESSORIES

DIRECTIONS
4 LIGHTS NORTH OF STEELES
1 BLOCK WEST OF WARDEN
HOURS:
MON. - FRI. 9:00 a.m. - 6:00 p.m.
SAT. 10:00a.m. - 2:00 p.m.

CD-ROM / CDR/W DRIVES

CD-ROM DRIVES
SONY 52x (EIDE) 39
LG 52x (EIDE) 39
LITE-ON 52x (EIDE) 39

CD RE-WRITERS
EIDE
LG GCE-8481BB (48x24x48) 89
LG GCE-8520B (52x24x52) 99
LG GCC-4320B COMBO (32x10x40) 129
LITEON 48246 (48x24x48) 89
LITEON 52246S (52x24x52) 99
PLEXTOR PX-320 COMBO (24X10) DVD 229
PLEXTOR W4012 (40x12x40) 159
PLEXTOR W4824 (48x24x48) 169
PLEXTOR W4824TABK (48x24x48) 179
SAMSUNG SM-332 COMBO (32x10x40, 16x DVD 139
YAMAHA CRWF1EB (44x24x44) 179
YAMAHA CRWF1EVK (44x24x44) 169

EXTERNAL
PLEXTOR (40x12x40, USB 2.0) 269
YAMAHA CRWFUXVK (44x24x44) USB 2.0 279

DVD / RECORDER

EIDE
LG DVD 16X 69
PIONEER DVD4 16X (TRAY) 69
PIONEER DVR-A05 449
SONY 16X DDU162 (TRAY) 69

JEWEL CASES

SINGLE 0.25
DOUBLE 0.45
QUAD 0.75
DVD-SINGLE 0.59
DVD-DOUBLE 0.69

CD LABELLING

BRIGHT WHITE (100) 8.99

SPEAKERS

INSPIRE 2500 69
INSPIRE 2600 79
INSPIRE 4.1 4400 79
INSPIRE 5.1 5200 109
INSPIRE 6.1 6600 179
MEGAWORKS 550 439
MEGAWORKS 510D 439
ALTEC LANSING AVS200 (3 SPKS) 29
ALTEC LANSING AVS300 (3 SPKS) 49
ALTEC LANSING AVS500 (5 SPKS) 69
ALTEC LANSING 2100 2.1(2+SUB) 159
ALTEC LANSING 221CN (2+SUB) 69
ALTEC LANSING 4100CN (4+SUB) 179
ALTEC LANSING 4100 (4+SUB) 189
ALTEC LANSING 621 (2+SUB) 179
ALTEC LANSING 641CN (4+SUB) 239
ALTEC LANSING 251CN (4+SUB) 129
ALTEC LANSING 220CN (4+SUB) 49
ALTEC LANSING XA3001 49
ALTEC LANSING XA3021 109
ALTEC LANSING XA3051 229
YAMAHA TSS-1 279

SCSI CONTROLLERS

ADAPTEC
SERVERS & WORKSTATIONS
AVA-2906 (RETAIL) 89
AHA-2930U (PCI/RETAIL) 139
FIRECONNECT 4300 99
USB 2.0/1394 CARD 189
2400A - RAID (EIDE/RETAIL) 529
19160 KIT (RETAIL) 339
29160 (RETAIL) 449
29160 (OEM / CABLE) 379
29160N (RETAIL) 419
39160 (RETAIL) 499

NOTEBOOK
AHA-1350 KIT 99
AHA-1460 PCMCIA SCSI CRTL. 169
AHA-1480 PCMCIA SCSI CTRL. 239
FIRE CONNECT CARDBUS 139

PROMISE
ULTRA 133 69
ULTRA TX2-100 59
FASTRAC 100TX 149
FASTRAC 100 PRO TX2 KIT 299
FASTRAC TX2000 169
FASTRAC TX2000 PRO 359
SUPERTRAC (SX6000) 499
SUPERTRAC (SX6000PRO) 719
SUPERSWAP 1000 129

DESK JET / INKJET

HEWLETT PACKARD
HP DESKJET 3420V 99
HP DESKJET 3820V 149
HP DESKJET 5550 189
HP DESKJET CP1700 699
HP DESKJET CP1700D 839
HP DESKJET CP1700PS 849
HP DESKJET 1220Cxi 559
HP DESKJET 1220C/PS 749
HP DESKJET 6122 279

MULTI-FUNCTION
HP 2110PSC 289
HP 2210PSC 469
HP 3300MFP 729
HP 3320MFP 919
HP 3320N-MFP 1349
HP 3330MFP 1009
HP D155XI 919
HP D135 579
HP 4100MFP 3099

BROTHER
BROTHER HL-1440 379
BROTHER MFC4800 459
BROTHER MFC6800 649
BROTHER MFC8500 649
BROTHER MFC9700 869
BROTHER 3100C 239
BROTHER 5100C 369
BROTHER MFC7150C 289

EPSON
STYLUS C80N 479
STYLUS C80WN 659
STYLUS 1520 679
STYLUS 3000 1359
STYLUS PHOTO 785EPX 229
STYLUS PHOTO 820 149
STYLUS PHOTO 825 289
STYLUS PHOTO 890 419
STYLUS PHOTO 925 389
STYLUS PHOTO 1280 689
STYLUS PHOTO 2200 1029

MODEMS / PALMTOP

MODEMS
AOPEN
AOPEN 56K INT VOICE (PCI-PX) 49
LINKSYS
CABLE MODEM WITH USB ETH. 139
3COM
USR 56K INT V.90 (PCI-HM) 119
USR 56K EXT V.92 139
USR 56K USB VOICE 209
PALMTOPS
PALM M125 149
PALM M130 359
PALMM505 379
PALMM515 489
PALMZIRE 159
CASIO BE-300 279
CASIO E-115 489

SCANNERS

HEWLETT PACKARD
HP SCANJET 2300C (8"x11") 99
HP SCANJET 3500C (8"x11") 149
HP SCANJET 3570C (8"x11") 219
HP SCANJET 4570C (8"x11") 279
HP SCANJET 5500C 429
HP SCANJET 7400C (8"x14") 649
HP SCANJET 7450C (8"x14") 899
HP SCANJET 7490C (8"x14") 1189

EPSON
PERFECTION 1260U PHOTO 179
PERFECTION 1660U PHOTO 269
PERFECTION 2400U PHOTO 339
PERFECTION 2450U PHOTO 559

CANON
N640PEX 109
D1250U2F 199
5000F 289
8000F 379
LIDE20 109
LIDE30 159

MICROTEK
3800 (8.5"x11") 109
4800 (8.5"x11") 139
4900 (8.5"x11") 229
5900 (8.5"x11" / 4" x 5") 279
6700 (8.5"x11") 499
6800 (8.5"x11") 579
8700 (8.5"x14" / 8"x10") 1039

DIGITAL CAMERAS

CANON
DIGITAL CAMERAS
POWERSHOT A30 ..... CALL
POWERSHOT A40 ..... CALL
POWERSHOT G3 ..... CALL
POWERSHOT S30 ..... CALL
POWERSHOT S230 ..... CALL
POWERSHOT S330 ..... CALL
POWERSHOT S40 ..... CALL
LOGITECH
QUICKCAM PRO 4000 139
DIGITAL CAMERA 159
FUJI
FINEPIX 2650 379
FINEPIX 3800 639
FINEPIX 6900 1089
FINEPIX A201 309
FINEPIX A203 419
FINEPIX A303 499
FINEPIX F601 729
FINEPIX S602 979
SONY
CYBERSHOT
DSC-P31 2.1MP 349
DSC-P51 2.1MP 379
DSC-P71 3.2MP 499
DSC-P94 .0MP 739
DSC-S854.1MP 809
DSC-F7175.0MP 1369
DSC-P30 499
DSC-P7 639

MAVICA
MVC-FD1001.3MP 479
MVC-CD200 1259
MVC-CD2502.1MP 899
MVC-CD4004.1MP 1099
MVC-FD2002.1MP 649
MVC-FD75 439
CAMCORDER (DIGITAL)
DCR-TRV340 909
DCR-TRV740 1099
DCR-TRV140 729
DCR-TRV240 869
DCR-TRV25 1179
DCR-TRV27 1369
DCR-TRV18 1099
DCR-TRV950 3339
DCR-PC101 1729

COMPACT FLASH CARD

LEXAR Media 512MB

Hi-Performance Compact Flash memory for Digital Camera's

12X SERIES
64MB ..... $69 128MB $99*
256MB ... $199* 512MB $369
16X SERIES - PREMIUM
128MB ..... $99* 256MB ... $199*
512MB ..... $369 1GB $919
24X - PROFESSIONAL
256MB ... $239 512MB $479
*Get $15 back by mail for a 128MB. Get $30 back by mail for a 256MB.

MEMORY STICK

32MB 49
64MB *(Get $15 back by mail. Call for details)* 69
128MB *(Get $30 back by mail. Call for details)* 109
Memory Stick USB Reader 49

SMART MEDIA

32MB 39
64MB 59
128MB 89
Smart Media USB Reader 49

MULTIMEDIA CARD

16MB 39
32MB 49
64MB 69
128MB 109

SECURE DIGITAL CARD

32MB 49
64MB 69
128MB 99
256MB 199
512MB 549

email:
sales@greytech.com

TAPE BACKUP UNITS

SEAGATE
EIDE
TRAVAN 40GB (STT2401A-S, BARE) 479
TRAVAN 40GB (STT3401A-RD, DKIT) 529
TRAVAN 40GB (STT3401A-RY, SKIT) 599
TAPESTORE 20GB (STT220000A-RDT) 399
SCSI
TAPESTORE 20GB (STT220000N-RDT) 469
DAT 24GB EXT. (STD624000N-SB) 1119
DAT 24GB INT. (STD224000N-SB) 899
DAT 24GB EXT. (STD624000N-RFT) 1399
DAT 24GB INT. (STD224000N-RFT) 1219
DAT 40GB EXT. (STD6401LW-RY) 1589
DAT 40GB INT. (STD2401LW-RY) 1339

EXTERNAL (USB)
TAPESTORE 20GB (STT6201U-R) 529
TAPES/CARTRIDGES
DGD125P (DDS-3 4MM/125) 22.99
DGD150P (DDS-3 4MM/150) 49.99
DGD15CL (DDS 4MM/CLEANING) 19.99
DGD120P (DDS-2 4MM/120) 12.99
DG90 (DDS 4MM/90) 34.99
QTR-1 / QTR-3 ..... 29.99 / 34.99
QTR-4 / NS-20 ..... 39.99 / 59.99
TRAVAN 20/40GB (STTM40) 79

NETWORK PRODUCTS

HUBS & SWITCHES
DLINK 4 Port USB Hub (DSB-H4) 49
DLINK 7 Port USB Hub (DSB-H7) 69
DLINK 8 Port Switch 10/100 (DSS-8+) 89
DLINK 16 Port Switch 10/100 (DSS-16+) 139
ROUTERS
DLINK Router / Switch 4-port (DI-604) 79
DLINK Router 4 Port w/ PRN PORT (DI-704P) 109
DLINK Router 7 Port (DI-707) 159
LINKSYS Voice Router (BEFN2PS4) 199
LINKSYS Router 3 Port (BEFSRU31) 179
LINKSYS Router 4 Port (BEFSR41) 99
LINKSYS Router 8 Port (BEFSR81) 139
ADAPTERS
3COM 3C905-TX (PCI) 59
DLINK 10/100 DFE-538-TX (PCI) 29
DLINK 10/100 DGE-500-T (PCI) 79
LINKSYS PCI 10/100 (LNE100-TX) 39
PCMCIA
DLINK 10/100 DFE-650-TX 79
DLINK CARDBUS DFE-690TXD 59

WIRELESS NETWORKING
DLINK
DLINK Wireless PCI Card (DWL-500) 119
DLINK Wireless PCI Card (DWL-520,2.4GHz) 129
DLINK Wireless PCI Card (DWL-520+) 109
DLINK Wireless PcCard (DWL-650) 109
DLINK Wireless PcCard (DWL-650+) 89
DLINK Wireless Access Point (DWL-900AP) 159
DLINK Wireless Access Point (DWL-900AP+) 179
DLINK Wireless Access Point (DWL-5000AP) 319
DLINK Wireless USB Port (DWL-120) 89
DLINK Wireless Notebook Kit (DWL-905) 429
DLINK Wireless LAN Kit (DWL-920) 459
DLINK Wireless Router (DI-614+,2.4GHz) 169
DLINK Wireless Router 3 Port (DI-713P) 249
DLINK Omni-Directional Ant. (ANT24-0500) 149
DLINK 8.5dBI PICO Cell Patch Ant. (ANT24-0801) 199
LINKSYS
LINKSYS WIRELESS PCI CARD (WDT11) 79
LINKSYS WIRELESS CARDBUS (WPC11) 99
LINKSYS WIRELESS ACCESS PT (WAP11) 139
LINKSYS WIRELESS PCI CARD (WMP11) 109
LINKSYS WIRELESS USB ADP. (WUSB11) 99
LINKSYS WIRELESS 4 Port (BEFW11S4) 179
PRINT SERVERS
LINKSYS 2-PORT SWITCHED (EFSP42) 199
LINKSYS 3-PORT 10/100 (EPSX3) 199
LINKSYS 1-PORT 10/100 (PPSX1) 159
LINKSYS Wireless USB ready (PPS1UW) 139

E-SHOP@
www.greytech.com

NOTEBOOKS

TOSHIBA (www.toshiba.ca)
SATELLITE PRO SERIES
11106MW (C-1.8G/256/20G/14T/CDR/W-DVD/XPH) 1699
2410CTX (P4-1.8G/256DDR/40G/15T DVD/XP) 2179
1900UWN (P4-2.4G/512/40G/15T/CDR/W-DVD/XPH) 2639
5200 P0E (MP4-2.0G/512DDR/40G/15T CDR/W-DVD/XPH/REMOTE CTRL) 3179
6100 R6D (P4-1.6G/256DDR/20G/14T DVD/XPPRO) 2329
6100 9ZD (P4-1.7G/256DDR/30G/15T DVD/XPPRO) 2599
6100 KKE (P4-1.8G/256DDR/30G/14T CDR/W-DVD/XPPRO) 2909

PROTEGE SERIES
3500 2GJ (P3-1.33G/256/40G/12"/DVD/XPP) 3499
4010 4FM (P3-933G/256/30G/12"/DVD/XPP) 3129

TECRA SERIES
9100 (P4-1.7G/256DDR/30G/14T DVD/XPPRO) 3449
9100 (P4-1.7G/256DDR/30G/14T CDR/W-DVD/XPPRO) 3579
9100 (P4-1.8G/256DDR/40G/14T DVD/XPPRO) 3629

POCKET PC
E330 300MHz (64MB/3.5"TFT SD SLOT/MS PC2002) 449
E740 400MHz (64MB/3.5"TFT/ SD SLOT/CF SLOT MS PC2002) 749

CDR BLANKS

700mb, 80min, 32x
Limited Quantities
100 Pack *Spindle*
$32.99

DVD MEDIA

Princo Brand
DVD-R 4.7GB
$2.29 each

KEYBOARD / MOUSE

MICE
LOGITECH
CORDLESS MOUSEMAN OPTICAL 99
CORDLESS MOUSEMAN WHEEL 79
HIGH PERFORMANCE OPTICAL MX300 59
HIGH PERFORMANCE MX500 79
HIGH PERFORMANCE CORDLESS MX700 109
MOUSEMAN WHEEL OPTICAL 69
CORDLESS WHEEL MOUSE 59
TRACKBALL MARBLE MOUSE 49
WHEEL MOUSE OPTICAL 39
FIRST MOUSE WHEEL 29
MICROSOFT
INTELLIMOUSE 3.0 29
INTELLIMOUSE TRACKBALL 1.0 39
INTELLIMOUSE OPTICAL 1.1 59
INTELLIMOUSE EXPLORER 79
WIRELESS INTELLIMOUSE EXPLORER 99

KEYBOARDS
LOGITECH
CORDLESS FREEDOM PRO 129
CORDLESS FREEDOM NAVIGATOR 109
CORDLESS M&K NAVIGATOR DUO 109
CORDLESS M&K COMFORT DUO 129
CORDLESS M&K ELITE DUO 129
CORDLESS M&K ACCESS DUO 89
CORDLESS FREEDOM (WITH MOUSE) 99
CLASSIC with WHEEL MOUSE 39
INTERNET NAVIGATOR 39
MICROSOFT
MS NATURAL PRO (PS2/USB) 89
MS INTERNET (PS2) 39
MS NATURAL ELITE (PS2) 49
MS INTERNET PRO (USB) 59
VIEWSONIC
VIEWMATE OFFICE (KP-201) 59
VIEWMATE OFFICE (KP-202,BLK) 59
VIEWMATE SLIM (KU-201) 59

** Grey-Tech reserves the right to withdraw pricing, products, or services without notice. Grey-Tech assumes no responsibility for errors in content or pricing. *Limited time offers*

SUMMIT DIRECT

Ask For Our
In Store Service
& Repair Professionals
We do on Site
Networks for Home
& Business

3 MONTH NO PAYME

WE WILL BEAT ANY

$549.77	$879.77	$1299.77	$14
SUMMIT STARTER	SUMMIT VALUE	SUMMIT EXTRA	SUMM

Pentium4 @ 1.7 GHz

P4 s478 Integrated MB
w/4x agp 2 USB ports
256 SDRAM Pc133
30 GB ATA 100 Hard Drive
1.44 Floppy Drive
52x CD Rom Drive
300W Mid Tower
32MB Savage4 Video Shared
10/100 Network Card
16 Bit Sound O/B
Amplified Speakers
PS/2 Mouse
104 Win Keyboard
4 Months Free AOL Internet Offer

Celeron @ 2.0GHz

P4 s478 Integrated MB
w/4x agp 2 USB ports
256 Meg SD-RAM
60 GB 7200 rpm Hard Drive
1.44 Floppy Drive
300W Mid Tower
32MB Savage4 Video Shared
10/100 Network Card
104 Win Keyboard
3 Button Mouse
16 Bit Sound O/B
Amplified Stereo Speakers
CD Re- Writer included
17" SVGA Color Monitor
Microsoft XP CD/License.
4 Months Free AOL Internet Offer

Pentium 4 @ 2.0 GHz

W/512 L2 Cache

S478 Integrated MB
w 4x AGP 2 USB ports
Memory 256 Meg Ram
60 GB ATA 133 Hard Drive
1.44 Floppy Drive
ATX 300W Mid Tower
32MB Savage4 Video
Ps2 Keyboard
Ps2 Mouse
48x CDRe-Writer
SB Compatible Soundcard
10/100 Lan Network Card
Amplified Stereo Speaker System
15" LCD Flatpanel Color Monitor
Windows XP with CD/License
4 Months Free AOL Internet Offer

Pentium 4

Asus P4S 533 M
512 DDR RAM
80 GB 7200 rpm
1.44 Floppy Drive
320W Mid Tower
64MB Geforce 4
Internet Keyboa
Optical Scroll Mo
16 Bit SB Compa
16X DVD w/Softw
48X CDR-W w/So
17" Samsung 75
ALTEC ACS21W
Win XP CD/Licen
Norton Antivirus
4 Months Free A

Hard Drives

40 GB 5400rpm	$ 119.77
30 GB 7200rpm	$ 109.77
40 GB 7200rpm	$ 129.77
60 GB 7200rpm	$ 139.77
80 GB 7200rpm	$ 164.77
120 GB 7200rpm	$ 229.77

Networks & Accessories

D-Link 538TX	$ 17.77
3COM 10/100	$ 52.77
D-LINK DSS 5+ 5 PORT 10/100	$ 69.77
D-LINK DSS 8+ 8 PORT 10/100	$ 89.77
D-LINK DSS 16+ 16 PORT 10/100	$ 179.77
D-LINK 704p ROUTER	$ 109.77

Sound Cards

CREATIVE SB LIVE 5.1	$ 49.77
CREATIVE SB AUDIGY OEM	$ 99.77
CREATIVE SB AUDIGY 2	$ 199.77
CREATIVE SB ADGY.2 Plat.	$ 289.77

Printers

LEXMARK Z25 * after $30.00 mail in rebate	$ 49.97 *
LEXMARK Z35	$ 99.97
LEXMARK Z55 * after $30.00 mail in rebate	$ 159.97 *
LEXMARK X63	$ 219.97
LEXMARK X75	$ 189.97
LEXMARK X83	$ 199.97
LEXMARK E210	$ 269.97
EPSON Stylus 820	$ 149.97
EPSON Photo 785EPX	$ 229.97
HP656C	$ 89.97
HP 3820v	$ 149.97
HP LASERJET 1000	$ 369.97
HP LASERJET 1200	$ 599.97
SAMSUNG ML 1210	$ 269.97
SAMSUNG ML 1440	$ 329.97

Scanners

Artec e+ USB	$ 74.77
Acer 3300U	$ 69.77
HP SCANJET 3500C	$149.77
HP SCANJET 4570C	$ 299.77
HP SCANJET 7400C	$ 649.77
EPSON 2400 Perfection W/FILM & SLIDE ADAPTOR	$ 339.77

Motherboards

Asus P4PE-GBL-R	$ 249.77
Asus P4PE-L	$ 219.77
Asus P4T533-C	$ 254.77
Asus P4B533	$ 179.77
Asus P4S533	$ 159.77
Asus P4S-E	$ 114.77
Asus A7N8X	$179.77
Asus A7V8X	$ 159.77
ECS K7S5A	$ 89.77
ECS Socket478 Integr.	$ 94.77

Monitors

DAYTEK / KDS / S
17" 0.27 dpi
19" 0.27 dpi
SAMSUNG
17" 753DF
17" 763MB
19" 955 DF
NEC
17" AS 70
19" AS95F
22" AS 125F
LCD Displays
15" NEC 1550V
15" Samsung 1
17" Samsung 1
18" Viewsonic V

Brampton
Near Steeles & Kennedy
30 Rambler Dr #10
Tel: (905) 874-9521
Fax: (905) 874-9175

Burlington
744 Guelph Line
Tel: (905) 631-9555
Fax:(905) 631-7681

Etobicoke
868 The Queensway
Tel: (416) 201-0258
Fax: (416) 201-0186

Hamilton
1320 Barton Street E.
Tel: (905) 548-9555
Fax:(905) 548-0200

Missi
4141 Dixie
Rockwood
Next to Ro
Tel: (905) 2
Fax:(905) 2

* All prices already 3% cash discounted. All prices subject to change without notice. We reserve the right to limit quantities. Hawk is a trademark of Summit Direct. All Hawk Systems come
are the property of their owners Summit Direct Inc. and some of their associated stores are not obligated to honor sale prices. Summit Dire

T NO INTEREST PLAN !!!

ADVERTISED PRICE!!*

*See Store For Details!

We Now Offer Extended Warranties On All Items See Store For Details!

SUMMIT DIRECT

99.77	$1799.77	$1949.77	$3149.77
TITAN	SUMMIT THUNDER	SUMMIT PERFORMER	HAWK MAX

2.4 GHz
W/512 L2 Cache

Drive

40 Video

Sound

re
Monitor
akers

3
nternet Offer

AMD Athlon XP 2000+ Mhz

- ASUS A7V 8x MB
- 512 Meg DDR RAM (PC-333MHz)
- 80 GB ATA 100 7200 rpm Hard Drive
- 1.44 Floppy Drive
- ATX A-Open Mid Tower
- Geforce 4 Ti 8x 128Meg Video
- Wireless Keyboard
- Wireless Mouse w. Wheel
- SB Live 5.1 OEM
- 48x CDRW w/Software
- 16x DVD Rom Drive
- Altec Lansing AVS300 Speakers
- 19" SVGA Color Monitor
- Win XP CD/License
- MS Works Suite 2003
- Norton Antivirus 2003
- 4 Months Free AOL Internet Offer

Pentium 4 @ 2.53B Ghz
W/512 L2 Cache

- ASUS P4B 533 MB
- 512 DDR RAM (PC-333MHz)
- 80 GB ATA 100 7200 rpm Hard Drive
- 1.44 Floppy Drive
- 320W Deluxe Mid Tower
- ATI Radeon 9000 w. 128 Meg Ram
- MS Internet Keyboard
- Logitech Optical Scroll Mouse
- 24 Bit SB Compatible Sound
- 48x CDRW w/Software
- 16x DVD Rom Drive, 10/100 Lan
- Altec Lansing AVS300 Speakers
- 19" Samsung Flat Color Monitor
- Win XP CD/License
- MS Works Suite 2003
- Norton Antivirus 2003
- 4 Months Free AOL Internet Offer

Pentium 4 @ 2.8B Ghz
W/512 L2 Cache

- ASUS P4T 533-C MB
- 512 MB Rambus Memory (1066MHZ) 533 Mhz FSB
- 120 GB ATA 133 7200 rpm Hard Drive
- 1.44 Floppy Drive
- Hawk ATX P4 Mid-Tower HX45-A
- ATI Radeon 9000 pro 128 Meg Video
- 17" Samsung 171S LCD Flatp. Monitor
- Microsoft Internet keyboard OEM
- Microsoft Optical wheel mouse-OEM
- SB Live Audigy-OEM- Sound Card
- Pioneer 16 x DVD Drive
- 52x24x52 CD-RW Drive
- Altec Lansing 251CN 6pc Speakers
- 10/100 Lan Ethernet Adapter
- Windows Xp Cd/License
- MS Works Suite 2003

Monitors come with 3Year Manufacturer Warranty

ITRON

	$ 179.77
	$ 259.77
	$ 219.77
	$ 229.77
	$ 344.77
	$ 219.77
	$ 369.77
	$ 729.77
	$ 529.77
S	$ 449.77
S	$ 729.77
800	$ 1069.77

NOTEBOOK SPECIALS!!!

$1149.77 Intel Celeron @ 1.1 GHz

- Intel Celeron 1.1GHz CPU
- 256 SD RAM (PC-266MHz)
- 10GB Hard Drive
- 8x DVD Rom Drive
- 56k Fax Modem
- 10/ 100 Lan
- 16 Bit Sound
- Integrated Speakers
- 4 USB Ports
- 14.1" XGA TFT Screen
- TV out

WOW!

$1799.77 Pentium 4 @ 2.4 Ghz

- Intel P4 2.4Ghz CPU
- 512 DDR RAM (PC-266MHz)
- 40GB Hard Drive
- 8x DVD, 32x CDRW Combo
- 56k Fax Modem
- 10/ 100 Lan
- 16 Bit Sound
- Integrated Speakers
- 15" XGA TFT Screen
- 4 USB 2.0 Ports
- IEEE 1394 Firewire
- TV out

WOW!

UPGRADE UPGRADE

AMD Athlon Xp 1800+ Socket 462 MB, 256 Meg SDRam, ATX Mid Tower	$ 329.77
Intel Celeron 1.7 Ghz P4 Mainboard, 256 Meg SDRam, ATX Mid Tower	$ 299.77
Pentium 4 1.7 Ghz P4 Mainboard, 256 Meg SDRam, ATX Mid Tower	$ 399.77

CD- RW/ DVD/ CDROM

52x CD Rom	$ 34.77
32x10x40X16DVD Combo	$ 129.77
48x16x48	$ 79.77
52x24x52	$ 99.77
Pioneer DVD RW A05	$ 449.77

Video Cards

ATI Radeon 9000 128Meg	$129.77
Geforce Ti 8x 128 Meg	$269.77
ATI All in Wond. Rad. 7500	$199.77

Fax Modems

56k v90 PCI	$ 19.77
56k v90 AOPEN Fm56 PCI	$ 47.77
USRobotics 56k OEM PCI	$ 79.77

CD-MEDIA

80 min 100 Spindle	$ 37.77
80 min 50 Spindle	$ 19.77

sauga
d.
all
l Bank
2-9555
2-0195

Newmarket
1100 Davis Drive Unit #1
Tel: (905) 953-9900
Fax: (905) 953-9412

North York
2150 Steeles Ave.W.
Tel: (416) 410-9555
Fax: (905) 738-8363

St. Catharines
145 Carlton St. Unit 2 & 3
Corner of Lake & Carlton
Tel: (905) 682-9555
Fax:(905) 682-9968

BBB

READERS' CHOICE '01 OFFICIAL WINNER THE HAMILTON SPECTATOR

22578714

a 6 month power exchange warranty and 7 years labour. All trademarks and trade names are used to identify entities claiming the marks and names of their products. All trademarks
c. will not be responsible for typing, or printing errors. **System prices may change due to market fluctuations of components.**

Musical Odyssey: Bang the drum electronically

By NESTOR GULA

In last month's column I mentioned that recording a great sound from a bass guitar was the hardest thing to do. A close second is getting a drum sound recorded properly. A good drummer really makes the band work. Interesting percussion will turn a relatively lame piece of music into brilliant art. Percussion is the heartbeat of the gods, capturing this is extremely tricky.

Live drums

Live drums present a standard problem for the home recording studio – they are loud and the various frequencies put out by an energetic drummer will have the whole house shimmying and shaking. If you are insisting on recording a live drummer, or perhaps just some percussion tracks, then experimentation is the key.

The standard layout for a drum kit is to put one microphone in the kick drum and two microphones positioned above the drum kit. Because you are using more than one mike, you will need a mixer to blend the sound of the drums properly. (Incidentally this three-mike system evolved from the early recording techniques and the standard home recording four-channel tape mixer – you would be able to record the drums on three tracks and then bounce the drums onto the one remaining track.)

The easiest way to get a half-decent sound is to listen to the two overhead mikes first, repositioning them as needed for a good sound. Once you have an acceptable sound you can turn up the mike in the kick drum to a level you find decent. If you are blessed with a large mixing board and a plethora of mikes, you should point one at the snare and then try to point the others at the toms. This all depends on how many mikes you have and how many channels your mixer has. When mixing with many mikes you should start with the overhead mikes as well, bringing up the individual mikes for flavour.

If you are just recording some rhythm patterns on a set of tablas, bongos, djembe or even Tupperware, then you will spend a lot of time experimenting with a proper mike setup to get a nice sound for your recording. I had a set of Roto-Toms for a while and I had a devil of a time getting a good sound out of them. I eventually grew tired of the constant setup I had to do to record a track and traded them in – for a drum machine.

Drum machine

I used to be morally opposed to drum machines – I thought that it was musical cheating and provided uninspired and repetitive drumming for music. I checked my pride in one day and played around with one at a store, and then traded the above-mentioned Roto-Toms in to buy such a machine.

Drum machines are great for the home recorder. Not only do they not make any noise (unless hooked up to an amp), they require no complex microphone setup. Some of them have individual outs so you can vary the mix between individual drum sounds. This is similar to miking a real drum set, except that you will not get the overhead mikes giving you the rich sound of the complete drum kit. When using a drum machine, you will have to play with effects like equalization, reverb and chorus to get the warmth of the sound. These effects will come from external effect units or from your recording software itself. Most drum machines have MIDI, so you can trigger the drum machine using your computer's recording software.

Loops

Loops are patterns that are repeated in music. Far from being a new concept, looping was used by experimental musicians for many years. The difference was they used tape loops and complex technology. Loops now are easy to record and store on your computer's hard disk. You can buy literally thousands of drum loops that you can incorporate into your music. Each drum loop is like a drum pattern. You can repeat it ad infinitum or blend it with another drum loop or loops to create really cool syncopations.

As with miking a live drum kit, recording electronic drums, either from a drum kit or loops, is an experimental process. Approaching this as a fun learning experience is the best way to get excellent results. ◆

FREE FREE FREE FREE FREE FREE FREE FREE FREE FREE FREE*

FREE GTA And Surrounding Area Pickup*!

Auction4it.com

Dell 21" Flat Screen Trinitron IBM 19" Trinitron Black Compaq/Dell/Viewsonic 17" Start Bid $1

Compaq 17" SVGA 0.26mm Monitor (Black) w/USB Hub Start Bid $1

Cobra microTalk 2-Way FRS220 Radios 14 Ch and 38 Sub-Ch, 2 Pack Start Bid $1

Intel P4 2.0GHz 256MB/60GB/DVD/LAN/Snd
Intel Celeron 2.0GHz 256MB/30GB/CDRW/Mdm/LAN
AMD XP 2200 256MB/60GB/CDRW/LAN/Snd
AMD XP2000 256MB/30GB/DVD/56K/LAN/Snd
Start Bid $1

Watch Liquidation (Start Bid)
Acuet/Citizen 11 Style Ladies $1
Citizen Elegance Gold Ladies $1
Casio Edifice Watch 100M $1
Kenneth Cole Mens/Ladies $1
Seiko Galaxy Hardlex Crystal $1
Timex Ironman Mens/Ladies $1
Timex Expedition Mens/Ladies $1
Timex Classics Chronograph $1
Timex Triathlon GPS Watch $229

Inkjet Cartridge (Check online for full listing) (Start Bid)
Epson
Photo 750 Color 3 Pack $32.99
440/670/740 Color 3 Pack $27.99
440/670/740 Black 3 Pack $22.99
640/860/1160 Color 3 Pack $27.99
740/860/1160 Black 3 Pack $26.99
Stylus 880/880I Black 3 Pack $27.99
C42UX Color 3 Pack $47.99
C50/C60 Color 3 Pack $40.99
C60 Black 3 Pack $40.00
C80 Black 3 Pack $58.99
Canon
2000/4000/5000/400 Color 3 Pack $21.00
2000/4000/5000/400 Black 3 Pack $21.99
3000/6000/S400/S600 Color 3 Pack $27.99

$1

Upgrades/Accessories (Start Bid)
ATX P4 350W MidTower ProCase $1
AOpen 6 Channel Sound Card $1
Ethernet Card ISA/PCI + PCMCIA $1
ECS P4 533FSB RAID Motherboard $1
USB 2.0 PCI Upgrade Card $1
LG DVD+CDRW Combo Drive IDE $1
Maxtor 30/60/80 GB 7200RPM HDD $1

Electronics (Start Bid)
Call-ID 2.4Ghz Cordless Speakerphone $1
Cobra FRS Radios w/14 Ch+38 Sub-Ch $1
CD/MP3 Player Walkman 480s AntiSkip $1
GP AA 1800mAH/AAA 600mAH Ni-MH $1
Panasonic CD Player 40s AntiShock $1
Samsung DVD/VCD/MP3/CD Player $1
Uniden TRU3485 2.4GHz DSS Titanium $1

Dell P II266/13.3" TFT/128M/4G/CD Upgrade Combo: AMD XP2000/256MB/350W Case Intel Celeron 2.0/256MB/350W Case Start Bid $1

AOpen 5 Port 10/100 Mbps Switching Hub CAT5e Cable/Clips/Jack Start Bid $1

Yamaha USB 2.0 12x8x24 Portable CD-RW MP3 CD Player CRW70 Start Bid $1

DVD Media

DVD-R/RW 4.7Gb 50Packs CD-R 80Min 48X 100 Packs Start Bid $1

Upgrade Combo AMD Duron 950Mhz (1400+) 256MB/Video/Snd/350W Case Start Bid $1

T-FAL 2.2lb Family Size MagicClean Deep Fryer w/Non-Stick Coated Pot Start Bid $1

Hamilton Beach Meal Maker Express Indoor Electric Grill Start Bid $1

Lagostina Pro-Clad Knife Set Start Bid $1

Quemex Jumbo Alarm Clock w/Thermometer Start Bid $1

Inkjet Cartridge - Best Deals - Save up to 70%

ATI Radeon 7000/9000 64MB
ECS 315P 64MB AGP w/3DVR
GeForce MX200 32MB/64MB
GeForce MX400 64MB w/TV
GeForce MX440SE 64MB w/TV
Start Bid $1

Yamaha YST-MS201 Black 3-Pcs Subwoofer Speaker Start Bid $1

T-FAL Thermospot Ultrabase Non-Stick Cookware Set 8 Pcs

Multi Network Cable Tester RJ45 + RJ11 w/Remote Testing

Firewire IEEE Kit Mini DV Cable Ulead VideoStudio

16mb Digital Camera 1.3 Megapixels USB Start Bid $1

Hamilton Beach 3.5 Gallon Cool Mist Humidifier w/Digital Control

MP3 Portable Mini-Player 32MB+FM Radio+Recorder Start Bid $1

Lagostina Marina Fine SS Flatware 43pcs Start Bid $1

Lagostina Extra Large Saute Pan 5.7L Start Bid $1

ATX Multimedia ProCase Silver+Side Exhuast+USB Start Bid $1

USB 2.0/1.0 Hi-Speed Ultra Slim Portable Alum. HDD Enclosure Start Bid $1

Visit us @ http://www.Auction4it.com

*Check Online For Promotion Details
New End of Line Factory Refurbished Products Arriving Daily!
New & Refurbished Products Backed By Minimum 30-Day Warranty!

Email: sales@auction4it.com
Toll Free: 1-877-808-8352
Fax: 416-754-4284

Yamaha Digital Dolby Surround Home Theater Start Bid $1

Uniden 900MHz 2Line Cordless Panasonic Digital Answer Sys. Start Bid $1

22583614

Adventures in digital video:
Golden rules and mean screens

By LEE RICKWOOD

In our last adventure, some "rules" were described that can help you make more attractive and engaging digital video images.

The idea is not to blindly adhere to the rule, of course, but to understand it, apply it when needed and to break it when you have a creative reason to do so.

The Rule of Thirds, described last time, sets down guidelines for image composition, that's all. It points out that certain areas of any image provide a strong anchor point for our eyes, one that can be ignored or implemented at will. The rule is based on centuries of artistic – and mathematic – precedent should not be ignored.

TV screens can't be divided perfectly into three, so the rule, no matter how tried and true, can't be followed exactly.

Which is good – again, the rule is really a guideline. If you have a good reason for not following it, well, don't. The best image is not only the one that follows the rules; it's often the one that serves the purpose, the one that meets your needs, the one that "feels right."

But if nothing feels just right, that's when remembering the Rule can help. It does have a solid foundation, one that goes back centuries.

That foundation is called the Golden Mean, or Golden Section, and it refers to those proportions or ratios most pleasing to the human eye, whether for emotional, aesthetic or cosmological reasons. Images or constructions that follow the Golden Mean are intrinsically pleasing, and artists and architects since ancient Greek and Roman times have sought to capitalize on the visually comfortable nature of the Golden Mean.

TV screens have not. They seem sized according to criteria other than "conforming."

Just so you know, the Golden Mean is represented by the Greek letter phi, and the decimal representation of phi is 1.6180339887499 ...

It's close, but not exactly the decimal representation for our old friend, the TV screen: 4:3 = 4/3 or 1.333 ... is its aspect ratio. Widescreen or letter-boxed images, also known as 16:9, are close, but still no cigar: 16/9 = 1.777...

Of course, digital video only complicates matters. Its technical specifications (ITU-601, formerly CCIR) designate a DV pixel format of 720x480, or a ratio of approximately 1.5. The standard CCIR 601 specification, 720x486, works out to roughly 1.481481 ...

Interestingly, with so many popular media display formats not conforming to the Golden Mean, there is some speculation that because we so rarely see it these days, we may in fact be losing our affinity for the perfect ratio.

If you're not numbered-out by now, there is plenty of additional information on the Web about the Golden Mean, aspect ratios, television screen formats and by implication, how absolutely unrelated TV is to any aesthetic consideration of visual proportions.

Next time, I promise, no history, no math – just more adventures in digital video, and how creativity can beat bad proportions every time. ◆

Some common media display ratios:		
21:9	2.35:1	Cinemascope/panavision film
16.65:9	1.85:1	Some American cinema film
16:9	1.78:1	Widescreen TV
15:9	1.66:1	European films
14.56:9	1.62:1	Golden section
12:9	1.33:1	Standard TV

more INFO

For more information about the Golden Mean, geometry, aspect ratios, and image displays, visit the following Web sites:

A Quick Guide to DV Resolution and Aspect Ratio Conversion:
www.uwasa.fi/~f76998/video/conversion/

Information on Multimedia Data Representations:
www.cs.sfu.ca/undergrad/CourseMaterials/CMPT479/material/notes/Chap3/Chap3.html

The Golden Mean and Elements of Design:
www.tcm.rmit.edu.au/notes/GoldenMean/golden1.htm

The Golden Mean and other related topics:
thegoldenmean.homestead.com

2788 Bathurst Street, Unit 105
North York, Ontario M6B 3A3
Tel: (416) 781-0496 Fax: (416) 781-2759
Email: support@cybraian.ca

Lawrence
Glencairn
Bathurst
Beside Royal Bank
Free Parking In Parking Lot

Cybraian Computer
Check our latest price @ www.cybraian.ca

Store Hours
Mon - Fri: 10:00am-7:30pm
Sat: 10:00am-5:00pm
*** Free Parking In Parking Lot ***

ECS Desknote $949
(Check details on website)

Via 1GIG Pro CPU, 14.1TFT
128MB, 10G HDD,CDROM,
56K Modem, LAN, Speaker
S-Video, VGA, 4 USB Ports
128MB+DVD $949

$849
Intel P4-2.0A
ASUS P4S533-E M/B
256MB DDR RAM
60GB 7200RPM HDD
LG 48x24x48 CDRW
LG 16x DVD
Sony 1.44MB Floppy
GF4 Mx440 64M W/TV
5.1 Stereo Sound
10/100 Ethernet Card
300W ATX Case
Compaq K/B,Mouse,SPK

$579
Intel P4-1.7G
ECS P4S5A M/B
256MB SDRAM
30GB ATA-133 HDD
LG 48x24x48 CDRW
Sony 1.44MB Floppy
ATI 32M Video Card
(Non-integrated)
16 Bit Stereo Sound
10/100 Ethernet Card
300W ATX Case
Win98 K/B, Mouse, SPK

$749
AMD XP2000
ASUS A7V8X M/B
256MB DDR RAM
60GB 7200RPM HDD
LG 48x24x48 CDRW
LG 16x DVD
Sony 1.44MB Floppy
GF4 Mx440 64M W/TV
5.1 Stereo Sound
10/100 Ethernet Card
300W ATX Case
Compaq K/B,Mouse,SPK

$649
AMD XP2000
MSI KT4 V L 8xAGP M/B
256MB DDR RAM
30GB 7200RPM HDD
LG 48x24x48 CDRW
LG 16x DVD
Sony 1.44MB Floppy
Geforce2 64MB Video
5.1 Stereo Sound
10/100 Ethernet Card
300W ATX Case
Win98 K/B, Mouse,SPK

$449
AMD XP1700
ECS K7S5A M/B W/2 USB
128MB SDRAM
30GB ATA-133 HDD
LG 48x24x48 CDRW
Sony 1.44MB Floppy
ATI 32M Video Card
(Non-integrated)
16 Bit Stereo Sound
10/100 Ethernet Card
300W ATX Case
Win98 K/B, Mouse, SPK

$319
AMD XP1300
PC Chips M/B W/2 USB
128MB SDRAM
30GB ATA-133 HDD
NEC 52x CDROM
1.44MB Floppy Drive
64MB Video Shared
16 Bit Stereo Sound
10/100 Ethernet Card
300W ATX Case
Win98 K/B, Mouse, SPK

Celeron-1.2GHz $1079
14.1TFT, 256MB , 10G HDD, DVD, 56K Modem, LAN, Speaker,S-TVOut, VGA, 4USB Ports

Intel P4 C-1.7GHz $1219
15.1TFT, 128MB , 20G HDD, DVD, 56K Modem, LAN, Speaker, S-TVOut, VGA, 4USB Ports

Intel P4 -1.7GHz $1449
15 TFT, 256MB DDR, 20G HDD, DVD/CDRW, LAN, 56K Modem, Speaker, TVOut, VGA, IEEE1394, 4USB2
2.0A/2.4A G /40GB/512MB + $60/110/80/80

Intel P4 -1.7GHz $1649
14.1 TFT, 256MB DDR, 20G HDD, DVD/CDRW
56K Modem, LAN, TV-out, VGA, 4USB Ports, 1 PCMCIA
Internal Li-ion Battery
2.0A/2.4A G /40GB/512MB + $60/110/80/140

AMD Athlon 1GB $1299
14.1TFT,128MB, 20G, 56K Modem, LAN, 2 USB Ports, 1.44MB Floppy,1 PCMCIA, DVD/CDRW
Internal Li-ion Battery

HARD DRIVE

MAXTOR (ATA-133)
30GB 7200rpm $103
40GB 7200rpm $119
60GB 7200rpm $125
80GB 7200rpm $149
120GB 7200rpm $219
200GB 7200rpm $489

Western Digital
2MB
40GB 7200rpm $121
80GB 7200rpm $149
120GB 7200rpm $229
160GB 7200rpm $383
180GB 7200rpm $449
8MB
40GB 7200rpm $131
60GB 7200rpm $153
80GB 7200rpm $172
120GB 7200rpm $269
180GB 7200rpm $425
200GB 7200rpm $475

Notebook HDD
20GB 4200rpm $129
30GB 4200rpm $171
40GB 4200rpm $195
20GB 5400rpm $155
40GB 5400rpm $239

VIDEO CARD

ATI
Radeon 7500 64M SDR/DDR $ 65/79
Radeon 8500 128M R.B. $245
Radeon 9000 64M/128M $99/125
Radeon 9000Pro 64M/128M $135/159
Radeon 9500 64M/128M $219/249
Radeon 9500 Pro 128M $265
Powercolor 9700Pro 128M $445
Radeon 9700Pro 128M OEM $499
Radeon 9700Pro 128M Box $535
A-I-W 7500 64M OEM/Box $179/189
A-I-W 8500DV 64M OEM/Box $251/285
A-I-W 8500 128M OEM/Box $365/405
A-I-W 9700Pro 128M OEM/Box $569/599

Leadtek
GF4 Ti4600 128M TV/O $385
GF4 Ti4400 128M TV/O $299
GF4 Ti4200 128M 8x VIVO $289
GF4 Ti4200 128M TV/O $239
GF4 MX440 64M 8X VIVO $165
GF4 MX440 64M TV/O $149

MSI
GF4 Ti4600-TD8x 128M $449
GF4 Ti4200-VTD8x 128M VIVO $295
GF4 Ti4200-TD8x 64M/128M $225/255
GF4 MX440-VT8x 128M $185
GF4 MX440-T8x/VTD8x 64M $115/149
GF4 Ti4600-VTD 128M VIVO $389
GF4 Ti4400-VTD 128M VIVO $319
GF4 Ti4200-VTD 128M VIVO $239
Gf4 Mx440 64MB SE/VIVO $99/105

CRT MONITOR

LG
17 700S $179
17 E700B Flat $205
17 F700B Flatron $259
19 E900B Flat $335
19 F900B Flatron $419

NEC
17 AS70 $205
17 AS75F Flat $225
17 Fe770 Perfect Flat $255
19 AS90 $305
19 AS95F Flat $339

VIEWSONIC
17 E70F Flat $235
19 E90F $350
19 G90F $375
19 P95F $399

LCD PANEL

15 NitsM1-SA $389
15 KDS RD-5 $419
15 Benq Fp557 $419
15 Samsung 151S $429
15 NEC 1550V $465
17 Proview $639
17 Albatron L17AT $649
17 Benq FP751 $669
17 Samsung 171S $729
17 NEC 1700V $759
18 Benq Fp882 $849

$425
Pioneer A05 DVDRW (BOX)

$55
USB Pen Drive 64MB

$2.5/pcs
Blank DVDR

$99
Logitech Optical Freedom

Winter Special

$999
(Tax Included)
Intel P4-2.0A
512MB RAM
60GB 7200 HDD
LG 48x24x48 CDRW
Sony 1.44MB Floppy
64MB 3D Video Shared
16 Bit Stereo Sound
10/100 LAN
Win98 K/B
Wheel Mouse
180W Speaker
300W ATX Case
17 LG 700S CRT Monitor

$888
(Tax Included)
Intel P4-1.7G
256 MB RAM
40GB 7200 HDD
LG 48x24x48 CDRW
Sony 1.44MB Floppy
ATI 32MB 4x AGP Video
16 Bit Stereo Sound
10/100 LAN
Win98 K/B
Wheel Mouse
180W Speaker
300W ATX Case
17 LG 700S CRT Monitor

All prices are already 4% cash discounted. Other form of payment will be cash discounted price plus 4%. Price subject to change without notice. 20% re-stocking fee. All sales are final.
22583014

Text messages come to car radios

By SUE BOWNESS

If you're the type of driver who appreciates traffic reports on the radio but would rather listen to rock than talk, you may be interested in radioText (www.radiotext.ca), a new technology that provides an alternative to flipping between stations. By taking over the display screen on your car radio, where station call letters usually appear, radioText technology turns this important dashboard space into an information hub, providing breaking news about traffic, weather, headlines and even song titles.

With 200,000 cars in the Greater Toronto Area already equipped to receive the radioText signal, and General Motors currently pre-installing the specialized receiver in 75 per cent of its new cars, radioText has seen increased popularity in Canada over the last few years. Yet the technology itself is hardly new – by now the receiver required to access radioText is almost standard in Europe, where the technology was developed almost 20 years ago to convey traffic information.

In Canada, radioText owes its advancement and growing popularity in large part to a Toronto-based company called E-radio. Founded in 1999 by Jackson Wang and Jason Chang, E-radio has spent the past four years promoting radioText not only to consumers, but also to broadcasters. The company has managed to persuade several Toronto stations to support the new technology, with Q107, Edge102, CHUM FM, Y108, Kiss 92, CHFI, Energy 93.1 and Country 95.3 all carrying radioText messages. Beyond the GTA, Barrie's 103.1, CHAY and Windsor's 93.9 are also involved. Their participation means that radioText receivers will display station-specific information about the current song's title and artist, in addition to the latest headlines and weather reports.

Getting a closer look

The radioText screen is larger than you might imagine, certainly with more room than the standard radio's display space. In fact, the radioText screen can vary in dimension from a smaller version measuring 2.5x12.7 cm (1x5 in.) to the more deluxe 8.9x12.7 cm (3.5x5 in.) display with touch screen programming. Though the messages are continuously updated, the driver must press a button on the display in order to access them, so that the text does not accidentally divert the driver's attention from the road. As you might imagine, the distraction factor has been one of the greatest sources of hesitation for installing the system in an already busy dashboard.

As far as content goes, the messaging sequence is consistent between both display sizes and is station-specific as well. Each 64-character radioText message is displayed for one minute continuously, and rotates through a cycle of four constantly updated segments: A "Now Playing" segment containing artist and title information on the current song, a "Breaking News" segment containing information like headlines or sports scores, a "Public Service" segment with weather and traffic details, and of course a one minute advertising segment.

Besides the rotating messages, radioText adjusts the standard radio display so that the proper station name appears (for example, 102.1 will display as "The Edge") as well as the type of music (ie. rock), which is handy for deciphering the genres available when visiting a new city. When travelling from one city to another, the receiver will also adjust the station reception based on the geographic location. For example, if a driver is listening to the CBC in Toronto and driving towards London, the station will switch over to the London CBC when the Toronto signal becomes weak.

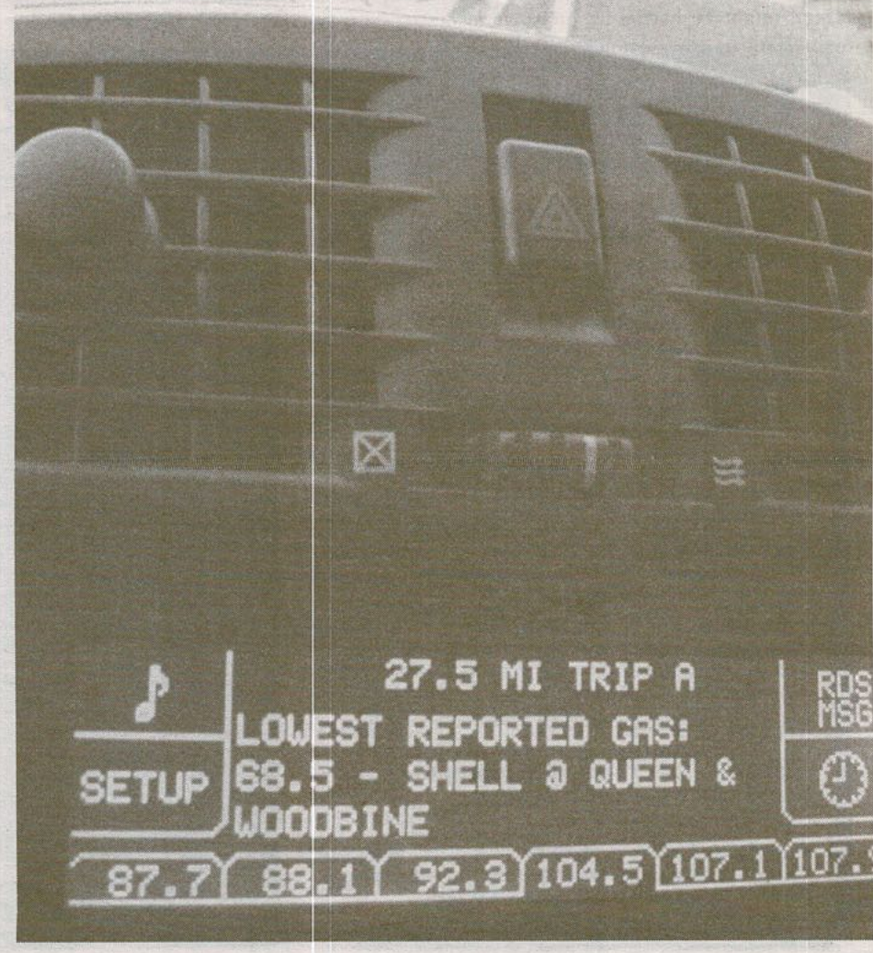
The receiver's geographic sensitivity and other features rely on an underlying technology called Radio Data System (RDS), which effectively piggybacks on the FM band in order to receive signals. Yet in both Europe and North America, the industry is already advocating a move towards the more autonomous Digital Audio Broadcast (DAB) technology, which operates on a different frequency and uses MPEG2 data reduction, allowing for a faster signal transmission (you may recognize DAB as the frequency generally touted to replace FM). E-radio and other advocates anticipate that this technology will soon become the standard for radioText, and indeed DAB receivers are set to be installed in 2003 vehicles.

Witnessing radioText for the first time, you realize it is one of those "why didn't we think of this before" technologies. Not only does the Now Playing display end the guesswork in trying to find out the name of that great new song playing on your way to work, but having the option to access practical, relevant information at the touch of a button just makes sense.

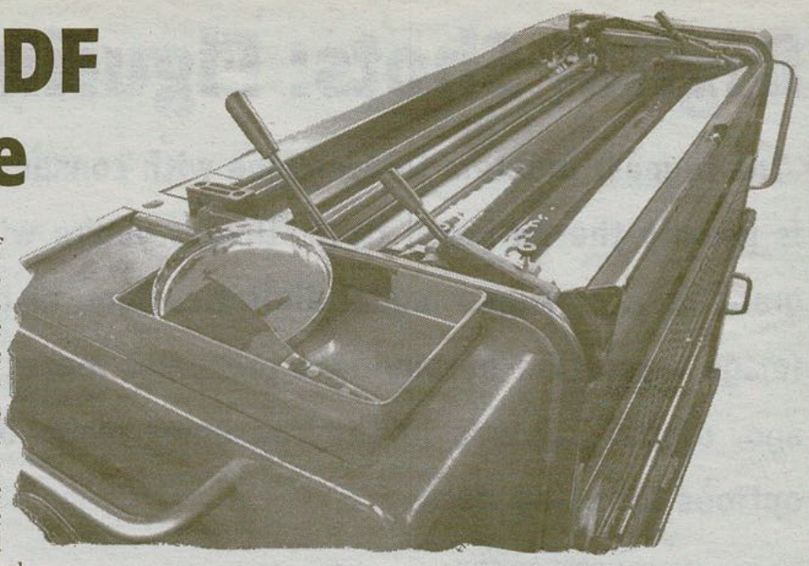
In keeping with the theory that a more informed driver is a better driver, radioText is definitely a technology worth considering.

E-Radio itself now offers retrofitting of the radioText receivers onto existing systems. ◆

As you might imagine, the distraction factor has been one of the greatest sources of hesitation for installing the system in an already busy dashboard.



Digital Words: Adobe PDF and a printer's paradise



By JEFF CHAPMAN

Until quite recently, publishers and printers were accustomed to dealing with "hard copies" of documents. While the desktop publishing technology of the '80s and '90s had allowed many independent publishers to prepare and print out their originals themselves, the whole business was decidedly primitive. Small publishers printed out their publications at home, using whatever printers were available, and then stuffed those precious originals into envelopes and carried them over to the print shop or copy shop, where their originals were entrusted to the strangers behind the counter, who would do their best to produce reasonably true copies.

Add flaws here ... and here ... and here

Every non-digital step of the process introduced new opportunities for imperfection. Since few home users had access to high-resolution laser printers, the publication's image quality was often halved by the time it was transferred from the screen to the page. In those all-too-common cases where the would-be publisher was compelled to rely on some half-dead, low-resolution, low-on-ink bubble jet printer to produce the originals, the publication that had looked so good on the screen might be barely legible on paper. Any smears, stains, folds, tears, cat hairs or toner-stained fingerprints the publication happened to pick up on its way from the printer to the print shop were there to stay. And if the precious originals were torn in the process of copying – and they always were – the horrific cycle would begin again, as the publisher was compelled to produce and deliver a new set of originals.

Those who could afford to use professional print shops instead of heading over to Kinko's had the option of trying to supply their material in digital form as a massive collection of document files and images. This worked, providing the publisher and the printer were both using the same version of the same publishing program, running on the same platform, had all the same versions of the same typefaces installed and the publisher's monitor was perfectly calibrated to the print shop's output device. Unfortunately, this never happened, particularly since most home users use PCs and most print shops use Macs, and since home users tend to use free or cheap typefaces and print shops tend to use professional, expensive typefaces. The results the print shops came up with often looked a little different from what the small publisher had in mind, necessitating time-consuming and sometimes expensive rounds of proofs and corrections.

PDF to the rescue

While most people probably still think of it as an annoyingly slow browser plug-in forced upon them by lazy webmasters, *Adobe Acrobat*'s Portable Document Format (PDF) can be put to good use by small publishers. Adobe's format is basically a highly compressed Encapsulated Post Script (EPS) file – it strips out all the information that isn't needed and leaves only the mathematical instructions necessary to reproduce a given document on a specified output device – and it can be viewed and outputted by both PC and Mac users with the free and widely available *Acrobat Reader* utility from Adobe. While one does need to purchase and install the full version of *Adobe Acrobat* in order to create PDFs, it isn't necessary to use Adobe desktop publishing software like *PageMaker* or *InDesign*; any program that can output EPS files (that is, almost every desktop publishing or technical illustration program on the market) can be used to make PDF files. Adobe isn't keeping this very useful technology to itself; indeed, the latest version of *QuarkXPress*, the main competitor to *Adobe InDesign*, has a PDF export command built right into its file menu.

To create PDF files, one simply loads a component of *Adobe Acrobat* called "Distiller," specifies certain basic output settings (resolution, colour or black and white, etc.) and feeds it an EPS file, which is then stripped to its bare essentials and converted into a PDF file. The entire publication – including all formatting, text, images and typefaces – is then rendered as a single PDF file, which fits on a single CD-R and might even be small enough to simply e-mail to the print shop.

The beauty of PDF files is that what appears on the creator's screen will bear a very strong resemblance to what comes out of the print shop's high-resolution output device. Colour matching still isn't flawless, unfortunately, but the embedded fonts, images, special characters, margins and so forth will all be reproduced exactly the same on two different machines, even on two different platforms, and what appears on paper will match what is on the screen as closely as possible. By putting off the conversion of a document into analogue format until the last possible moment – the creation of the finished product by the high-quality output devices – small publishers can achieve much higher resolutions and more professional-looking results. ◆

2800 14th. Ave. Unit 11, Markham
TEL: 905-479-8922 FAX: 905-479-8997
E-Mail: info@look4computer.com
All Prices are already 4% cash discounted.
Prices are subjected to change without notice..
HOUR: Monday -Friday 10:30--7:00 Saturday 11:00--6:00
14TH AVE / STEELES / WOODBINE

NEW LEGEND
LOOK4COMPUTER.COM

WE FIX AND UPGRADE OLD COMPUTER !
PRICES CHANGE QUICKLY. FOR THE LATEST PRICES VISIT WWW.LOOK4COMPUTER.COM

AMD Duron 1400+...$335
ALL-IN-ONE MOTHERBOARD
128MB Pc133 SDRAM
VIDEO ONBOARD
SOUND ONBOARD
LAN ONBOARD
30GB HDD / 1.44 FDD
52X CDROM
ATX 350W MID TOWER CASE
PS/2 KEYBOARD / PS/2 MOUSE

INTEL C1100.....$379 C1300.....$399
MSI 6368TL MOTHERBOARD
128MB Pc133 SDRAM
VIDEO ONBOARD
SOUND ONBOARD
LAN ONBOARD
30GB HDD / 1.44 FDD
52X CDROM
ATX 350W MID TOWER CASE
INTERNET KEYBOARD
PS/2 WHEEL MOUSE / SPEAKER

AMD XP2000.....$799 XP2100.....$819
MSI KI3 ULTRA2 DDR333 MB
256MB 333MHZ DDR RAM
GEF4 MX 440 64MB TV/O
60GB HDD 7200 RPM ATA 133
1.44 FDD / 16X DVD
48X24X48 CDRW
SOUND ONBOARD
56K V.92 FAX/MODEM
10/100 NIC
ATX FRONT USB MID TOWER CASE
LOGITECH KEYBOARD
LOGITECH OPTICAL WHEEL MOUSE
SPEAKER

INTEL P4 1.8GA.....$789 P4 2.0GA.....$819
VIA P4MA-PRO MOTHERBOARD
256MB 266MHZ DDR RAM
VIDEO ONBOARD
SOUND ONBOARD
LAN ONBOARD
40G HDD 7200RPM ATA 133
1.44 FDD / 16X DVD
48X24X48 CDRW
56K V.92 MODEM
ATX 350W FRONT USB MID TOWER CASE
LOGITECH ACCESS KEYBOARD
PS/2 WHEEL MOUSE
SPEAKER

CDROM CDRW DVD
52X CDROM-LG/SONY.....31/34
16X DVD LITEON/LG/SONY.....54/57/59
16X DVD PIONEER TRAY.....63
LG 48X24X48/SONY 48X12X48.....73/76
LITEON 48X24X48/52x24x48.....72/82
MSI 48X16X48 Box.....73
PLEXTOR 40X12X40/48X24X48.....168/190
LG 32X10x40CDRW/16X DVD COMBO...109
PIONEER DVR A05/DVR 105.....425/415

MOTHERBOARD
ECS P455ADX+.....95
ECS K755A.....84
ASUS A7V333/A7V333 Raid.....142/175
ASUS A7N-8X / DX.....182/215
ASUS A7M266/A7V8X.....309/158
ASUS P4S333/P4S533 8478 MB.....105/146
ASUS P4S8X/P4B 533-E-L.....193/219
MSI 6366 5370 ALL-IN ONE MB.....89
MSI 6547E 5478 DDR333.....119
MSI 6712-020 KT400 DDR400 AGP8X.....125
GIGABYTE GA7VA/7VAX/VAXP.....115/125/155
GIGABYTE GA8IE533.....125
For more model of ASUS, MSI, GIGABYTE, ECS, VIA, BIOSTAR motherboard, please check:
www.look4computer.com

VIDEO CARD
ECS SIS 32MB AGP/64MB TV/O.....35/59
ATI Xpert 2000 32MB/TNT2 32MB....45/43
ATI RADEON 7000 64MB SDR TV/O.....57
ATI RADEON 7000 64MB DDR.....89
ATI RADEON 7500 64MB SDR TV,DVI.....64
ATI RADEON 7500 64MB DDR TV/O.....73
ATI RADEON 9000 128MB TV/O 135
GEF2 MX400 64MB/TV.....53/60
GEF4 MX440 64MB DDR TV/O.....77
ATI Radeon 7000 64MB TV PCI 88
TNT2 M64 32MB PCI 65
For MSI, ALBATRON, ASUS and ATI original video card, please check:
www.look4computer.com

MONITOR
SAMSUNG 15 151S LCD.....433
SAMSUNG 17 750S/753DF.....165/193
SAMSUNG 19 950B/955DF.....269/332
NEC 17 AS 70 / AS75F.....195/219
NEC 19 A590 / A595F.....279/342
LG 15 563N 157
LG 17 700S / E700B 178/215
LG 19 E900B.....299

HARD DRIVE
SEAGATE
7200rpm
40G.....119
60G.....139
80G.....155
MAXTOR
5400rpm
20G.....94
30G.....97
40G.....109
60G.....128
80G.....145
160G.....375
WD
5400rpm
20G.....97
40G.....112
60G.....149
TOSHIBA (Laptop)
10G.....CALL
20G.....145
FUJITSU (Laptop)
10G.....125
20G.....138
IBM (Laptop)
10G.....135
20G.....159
IBM
7200rpm
40G.....125
60G.....137
80G.....157
7200rpm ATA133
20G.....99
30G.....102
40G.....115
60G.....129
80G.....150
7200rpm
40G/8MB.....119/131
60G/8MB.....142/162
80G/8MB.....152/169
120G/8MB.....238/275
30G.....189
40G.....222
30G.....182
40G.....222
30G.....175
40G.....206

FAX MODEM
56K V.92 FAX/MODEM.....17
56K AOPEN V.92 PCI.....23
56K AOPEN V.92 PCI HARD.....38
56K USR V.90 PCI.....27
56K USR V.90 2976.....69
56K USB EXTERNAL.....69

SOUND CARD
4CH PCI.....16
SB 128 PCI.....27
SB LIVE 5.1 47
SB LIVE AUDIGY 95
SB AUDIGY GAMER (BOX) 135
SB AUDIGY Mp3+ (BOX) 135
SB AUDIGY2 (BOX) 175
SB AUDIGY2 PLATINUM (BOX) 265
SB AUDIGY EXTIGY (BOX) 199
SB AUDIGY PLATINUM EX (BOX) 227

NETWORKING
10/100 NETWORK CARD 10
D-LINK 10/100 NETWORK CARD 16
3COM 3C905CXT 46
9 PORT HUB 32
USB NETWORK ADAPTER.....17
USB 4PORT HUB 15
ANY NETWORK CABLE .....CALL

PRINTER
CANON BJC 1320/5520/5750...99/125/147
EPSON C42UX/C62/C82.....67/142/225
LEXMARK Z25/35/55.....62/95/166
SAMSUNG ML1210/1450 LASER....289/419

SCANNER
BENQ 4300U 600X1200 USB 73
BENQ 5000E 1200X2400 USB.....93
MUSTEK 1200UB PLUS USB 62
CANON LIDE20 600X1200 48BIT 99
CANON LIDE30 1200X2400 48BIT 139

SPEAKER
ALTEC LANCING AVS21W/200W.....19/25
ALTEC LANCING AVS300W/500W...39/57
CREATIVE INSPIRE 2.1 2500.....59
CREATIVE INSPIRE 4.1 4400.....75
CREATIVE INSPIRE 5.1 5200.....129
OG 691 10
OG 1050 19
OG 2000 Subwoofer.....39
OG 5000 4.1 55
OG 5000 5.1 65

SPECIAL
USB FLASH MEMORY 64MB/128MB/256MB.....48/75/139
USB EXTERNAL ENCLOSURE 2.5 /3.25 .....39/65

Digital Shots: Figuring out flash

The biggest problem to overcome with consumer level digital cameras is usually the on-board flash. Unless you're willing to drop over a grand on a prosumer model digital camera, or to sacrifice overall image resolution by buying a prosumer model from a few years ago, digital cameras in the consumer realm don't give you many options for using flash.

By ANDREW MOORE-CRISPIN

Most digital cameras with on-board flash give menu options for flash firing mode, but given the location of the flash – usually, directly above the lens or offset to the left or right above the lens – there is little flexibility, even with the flash modes cameras offer.

That said, the flash modes contained within the menus can help you to take better pictures without buying extra equipment or upgrading your digital camera.

Auto

This mode is best for snapshots and pictures where the subject matter is more important than the composition; for example, quick photos of family and friends taken to document time spent together rather than for visual impact. These are the kinds of photos we've all seen in countless family photo albums.

Auto flash mode takes most of the guesswork out of taking a picture and, as the name implies, will automatically make the selection of the best possible flash mode for a given situation. However, it pays to be familiar with the other flash modes, as Auto mode decides how to fire based on overall light, the key subject's distance from the lens and shutter speed and aperture. The key subject in most digital cameras is defined as the object in the centre of the frame, which, as we have discussed in conversations about the rule of thirds (dividing the frame into thirds vertically and horizontally and placing subjects where these lines intercept as opposed to centering them in the frame), doesn't lend itself to very interesting images.

Auto flash usually works well to give a balanced overall image, but doesn't have the capability for judgment that the person behind the lens has.

Fill flash

Fill flash is used in harsh lighting conditions where the light source, most often the sun, is casting harsh shadows

Markham
7170 Warden Ave. #19
Tel: (905) 475-0817
Fax: (905) 475-1476
e-mail: markabc@on.aibn.com

Etobicoke
248 Browns Line
Tel: (416) 253-8789
Fax: (416) 253-0981
e-mail: etoabc@on.aibn.com

ABC

Scarborough
4400 Sheppard Ave. E #13
Tel: (416) 335-8672
Fax: (416) 335-7452
e-mail: scarabc@bellnet.ca

New Location

Office Hour:
Mon to Fri: 10-6:30
Sat: 10-5
Sun: CLOSED

CyberDeluxe P4 System
System Includes:
* Intel 845PESVL, Intel Orginal Motherboard or Asus P4PE, Intel 845PE Chipset ATX Motherboard
* Ultra-fast USB 2.0 Support,
* Intel® Pentium® 4 Processor 478 pins, 512K Cache, 1.8 GHz $ 1059
* 256MB DDR Ram 184pins, 1.44MB Floppy Drive,
* Maxtor 60GB 7200rpm IDE Hard Drive,
* ATI Radeon 7500 64MB DDR (VGA + DVI + TV out) AGP Video Card or GeForce 4 MX440 64MB DDR Video Card, 2.0 GHz $ 1089
* On Board 10/100BT Ethernet Adapter,
* LG 48X CD-RW Drive,
* LG 16X DVD Rom Drive,
* Creative Sound Blaster Live 5.1 Sound Card,
* Atlec Lansing AVS-500W Subwoofer Speakers System
* ATX Tower Case w/300w P4 Power Supply, (Equipped with 6 pins Aux & 4 pins +12v Power Connector) 2.4 GHz (533FSB) $ 1149
* Compaq Internet Keyboard,
* Logitech Wheel Mouse Optical.
* Upgrade to : Microsoft MultiMedia Keyboard & Wheel Mouse Optical....+$ 15

CyberPro P4 System
System Includes:
* Intel® Pentium® 4 Processor 478pins, 1.7 GHz w/256k cache $ 765
* Asus P4S 533 - VML, ATX Motherboard,
* 256M DDR Ram 184pins,
* Maxtor 20GB 7200rpm Hard Drive,
* GeForcell MX 64MB AGP Video Card 1.8 GHz w/512k cache $ 805
* 1.44MB Floppy Drive,
* LG 48x CD-RW Drive,
* 10/100BT Ethernet Adapter,
* On Board AC97 Sound Audio,
* Subwoofer Speakers System or Altec Lansing ACS21W Speaker, 2 GHz w/512k cache $ 835
* ATX Tower Case w/300w P4 Power Supply, (Equipped with 6 pins Aux & 4 pins +12v Power Connector)
* Compaq Internet Keyboard,
* Logitech Wheel Mouse Optical.
Upgrade to : 60GB 7200rpm Hard Drive....+$ 40
Microsoft MultiMedia Keyboard & Wheel Mouse Optical....+$ 15

Red Hot Deal !!
System Includes:
* Intel® Retail Box CPU, w/Ball Bearing Cooling Fan,
* ECS P4 ATX Motherboard,
* 128MB PC133 SDRam, 168pins, 133MHz,
* 20GB 7200rpm ATA133 Hard Drive,
* 1.44MB Floppy Drive,
* on board 64MB Share Video, Celeron 1.7GHz $ 585
* 17" SVGA 1280x1024 Monitor,
* Intergrated Ethernet Adapter,
* 52X CD-Rom Drive,
* On Board 3D Sound Audio, Celeron 2 GHz $ 635
* 120W Amplified Speakers,
* ATX Tower Case w/300W P4 Power Supply,
* A-Open PS/2 Keyboard,
* A-Open Wheel Mouse & Mouse Pad.

AMD Athlon K-7 System
System Includes:
* Asus A7S333, SIS 745 Chipset, ATX Motherboard,
* CPU Heat Sink with Ball Bearing Cooling Fan,
* 256MB DDR Ram 184pins,
* Maxtor 20GB 7200rpm Hard Drive,
* Panasonic 1.44M Floppy Drive,
* GeForce4 MX440 64M 4X AGP Video Card or ATI Radeon 7500 64MB w/TV out Video Card,
* 10/100BT Ethernet Card,
* Asus 52X IDE CD-ROM Drive,
* On Board C-Media 6 Channel Audio Controller,
* Altec Lansing ACS21W Speakers,
* ATX Tower Case w/300W P4 Power Supply, (Equipped with 6 pins Aux & 4 pins + 12v Power Connector)
* Compaq Internet Keyboard,
* Logitech Wheel Mouse Optical.
Upgrade to : 60GB 7200rpm Hard Drive....+$ 40
XP 1800+ $ 599 | XP 2000+ $ 619 | XP 2200+ $ 739

AMD BASIC SYSTEM
Duron 1200MHz $ 625 | T-B XP 1800+ $ 685 | T-B XP 2000+ $ 705
System Includes:
* Asus A7S 333, SIS 745 Chipset ATX Motherboard
* AMD Retail Box CPU, with Ball Bearing Cooling Fan,
* 128MB DDR Ram,
* 20GB 7200rpm ATA133 Hard Drive,
* 1.44M Floppy Drive,
* GeForce II MX400 64M Video Card
* 17" SVGA 1280x1024 Monitor,
* 52X IDE CD-ROM Drive,
* On Board C-Media 6 Channel Audio Controller,
* 120W Amplified Speakers,
* ATX Tower Case w/300W P4 Power Supply, (Equipped with 6 pins Aux & 4 pins + 12v Powert Connector)
* A-Open PS/2 104 Keys Keyboard,
* A-Open Wheel Mouse & Mouse Pad.
22581114

* PRICES SUBJECT TO CHANGE WITHOUT NOTICE* ALL PRICES ARE ALREADY 4% DISCOUNTED FOR CASH, MONEY ORDER & CERT. CHEQUE* ABC IS NOT RESPONSIBLE FOR TYPOGRAPHICAL ERROR* TRADESMARKS & LOGOS ARE PROPERTIES OF THEIR RESPECTIVE OWNERS*

Monitor Special: (With System Purchase Only)
17" LG 700S .27 1280 $ 175
17" LG E700B .25 1280 $ 203
19" LG E900B .25 1600 $ 325
15" LG 1511S LCD Monitor $ 429
15" LG 566LM Multimedia LCD Monitor $ 429
17" LG 786LS LCD Monitor $ 659
18" LG 1800P LCD Monitor $1019
17" NEC AS70 .27 1280 $ 205
17" NEC AS75F .25 1280 *PF $ 229
19" NEC AS95F .25 1600 *PF $ 355
21" NEC AS120 .22h 1600 $ 717
17" NEC FE771SB .25 1280 *PF $ 259
19" NEC FE991SB .25 1600 *PF $ 399
15" NEC 1550V LCD Monitor $ 469
17" Samsung 753DF .21h 1280 $ 206
19" Samsung 955DF .20h 1600 $ 339
** Limited Quantities ** Dealer Welcome **

MOTHERBOARDS
Asus:
P4PE-G8L-R (Intel 845PE Chipset) $ 219
P4PE (Intel 845PE Chipset) $ 189
P4B533 (Intel 845E Chipset) $ 175
P4B533VML (Intel 845G Chipset) $ 149
P4S533VML (SIS 651 Chipset) $ 125
P4S533-E (SIS 645DX Chipset) $ 155
P4S8X (SIS 648 Chipset) $ 195
P4TE (Intel 850 Chipset) $ 219
P4T533 (Intel 850E Chipset) $ 259
P4T533-C (Intel 850E Chipset) $ 245
P4T533-CL (Intel 850E Chipset) $ 249
A7S333 (SIS 745 Chipset) $ 109
A7V333-GD (VIA KT333 Chipset) $ 175
A7V333-Raid (VIA KT333 Chipset) $ 175
A7V333 (VIA KT333 Chipset) $ 145

MOTHERBOARDS
Asus:
A7V8X ((VIA KT400 Chipset) $ 169
A7V8X-1394 (VIA KT400 Chipset) $ 189
A7N8X-1394 (nForce2 Chipset) $ 185
Intel:
P4D850EMV2L (Intel 850E Chipset) $ 245
P4D845GEBV2 (Intel 845GE Chipset) $ 179
P4D845GERG2 (Intel 845GE Chipset) $ 175
P4D845GERG2L (Intel 845GE Chipset) $ 195
P4D845PEBT2 (Intel 845PE Chipset) $ 205
P4D845PESVL (Intel845PE Chipset) $ 175

VIDEO CARDS
ATI All-In-Wonder Radeon 7500 64MB $189
ATI All-In-Wonder Radeon 8500 64MB $259

VIDEO CARDS
ATI All-In-Wonder Radeon 8500 128MB $409
ATI Radeon 7000VE SDR 64MB DH $ 55
ATI Radeon 7500 DDR 64MB TV $ 89
ATI Radeon 8500LE DDR 128MB S/H $149
ATI Radeon 8500 DDR 128MB Retail $249
ATI Radeon 9000 DDR 128MB TV $135
ATI Radeon 9000 Pro 128MB TV D/H $159
ATI Radeon 9500 Pro 128MB DDR TV $269
ATI Radeon 9700 Pro 128MB D/H $409
Asus V8170 MX420 64MB DDR TV $105
Asus V8170 MX440 64MB DDR TV $125
Asus V9180 MX440 64MB DDR TV $165
Asus V9280 Ti4200 128MB 8x $249

Special Deal! with System Purchase
19" HOT! HOT! HOT! CTX .25 1600 PURE FLAT MONITOR $ 259
* LG 48x CD-RW Drive $ 79.50
* Epson Stylus C42UX InkJet Printer $ 64.65
* Mustek 48bit 600x1200 USB Scanner $ 68.43
* 60GB 7200rpm Hard Drive $ 136.00
* 40x 80min/700MB CD-R Disk (50 Spindle) $ 20.00
* 10x 80min/700MB CD-RW Disk $ 1.90
* Microsoft Internet KB & Wheel Mouse Optical Combo $ 39.50
* Samsung ML-1430 Laser Printer $ 279.55
* Price ONLY effective between Jan.29 - Feb.11, 2003 *

on the subject, like a face. Fill flash will cast light in dark areas, like under the nose, eyes and mouth, and is intended to give a more even light to the image.

The mistake many amateur photographers make is to assume that flash is used brighten up a scene that lacks sufficient light. While this is a key function of flash, it's not the only application. Try using fill flash to give pictures a more even light quality and soften up shadows in harsh lighting conditions.

Slow Synchro

Slow Synchro flash mode is much as it sounds; the shutter will stay open longer (usually around 1/4 second) to gather more ambient light from the background, while the flash fires to illuminate objects in the foreground. Think of taking a picture on a balcony at night, overlooking a city skyline. The flash will do nothing to illuminate the background elements, so a fast shutter speed would lose all background detail. Instead, the flash acts as the shutter for the foreground, while the background gets a bit longer to expose.

Red-eye reduction

Red-eye occurs when the light from a flash bounces off the blood vessels in the retina and gives your subject that demonic look that is sometimes hard to avoid. Red-eye reduction flash will fire a few short bursts before actually taking the picture, to dilate the subject's pupil and minimize the light bouncing back to the camera. Try to avoid this setting, as it is only a band-aid solution and usually creates more confusion with people moving out of the frame before the picture is taken. Instead (or as well as), avoid having the subject look directly at the lens (and hence the flash), or position a slave flash off to either side of the camera, which brings me to my next point.

Since we don't have to pay for our mistakes in digital photography, keep experimenting until you get a result you're happy with

Slave flash

Some more advanced consumer level digital cameras have either a hot shoe mount or flash synchronization port that can be used in conjunction with or instead of the camera-mounted flash. Having an adjustable flash can help a lot in getting a balanced and even picture that on-camera flash just doesn't have the flexibility to provide. However, if your digital camera is without the hot shoe or flash synchronization ports, all is not lost.

Off-camera flashes can be had in many dedicated photography stores for about $150 for an intermediate level flash that can grow with you and provide the flash flexibility that consumer digital cameras often sorely miss. These adjustable flashes give users much more control on how the light from the flash is to be delivered, but also require a bit more attention in order to get a good end product. We won't go into the details of setting up a slave flash in this column, as this information is usually well explained in the flash instruction manual, online and in many beginner- and intermediate-level photography books.

Assuming your digital camera doesn't have a hot shoe or flash synchro port, you will also need a photo slave. The smaller of these light sensitive diodes are usually no bigger than a cufflink – often called peanut slaves – and fit on the end of a flash synchronization cord. The slave senses when your on-camera flash fires, and will trigger the second, off camera flash to fire.

Slave flash presents a special case in digital, as the primary flash will attempt to illuminate the whole scene, which means photographers must pay more attention to getting the setup correct; using a subdued slave flash setting will give a balanced light quality in most situations. Another option is to use light masking tape (electrical tape works well) to position a peanut slave right in front of the on-camera flash. This will avoid many of the problems with overexposure and is essentially a hot shoe or synchronization port alternative. After setting up a slave flash, it's just a matter of configuring it correctly for the situation.

As with all photography, much of the learning process is trial and error; using a slave to fire a second flash can potentially result in an over-lit, washed out image, similar to the lighting effects used in the music videos of ageing divas to hide wrinkles and other "imperfections" of the skin.

Since we don't have to pay for our mistakes in digital photography, keep experimenting until you get a result you're happy with; it's all part of the fun and part of the reason we went digital in the first place. ◆

Pc4 CANADA
255 College Str.
Tel:416-593-6688
Fax:416-593-9880
E-mail:sales@pc4canada.com
N College E
Spadina Nr.255
MON.--SAT. 11:00-19:00
SHOP ON LINE: WWW.PC4CANADA.COM

Pc4Student $499
Intel P4 cel.2.0G
ECS P4S5MG DDR board (533FSB,4USB2.0)
128MB SD RAM Pc133
30GB HDD Maxtor
48x16x48 CDRW MSI
16BIT Sound, 1.44 FDD
64MB Video, 10/100 Lan
ATX P4 300W Case
Wheel Mouse,Keyboard
Powerfull Speaker 220W
*Intel P4 1.6 $579
*Intel P4 2.0 $628

Pc4Office $828
Intel P4-2.0G 512k CPU
ASUS P4S333 DDR400 Board
256MB DDR RAM Pc266
Geforce4 Mx440 64MB 3DVideo
3D Sound Build In
10/100 Lan Card PCI
40GB 7200RPM Hard Disk
48x16x48 CDRW, 1.44FDD
ATX 300W p/s Midtower Case
Valued PS2 Keyboard
Ps2 Wheel Mouse
600W Stereo 2.1 Subwoofer Speaker
*Intel P4-1.8G $788
*Intel P4-2.4G $878

Pc4Gamer $878
AMD XP2100+CPU
Asus A7N8X DDR400 Board
256MB DDR Pc266 2100 RAM
40GB ATA133 7200RPM HDD
48X16X48 CDRW
1.44 FDD, 3D Sound Build in,
ATI Radeon9000 64M DDR/TVO
10/100 LAN Card , 4 USB
ATX P4 300W p/s Case
LiteOn internet Keyboard (black)
Logitech Optical Wheel Mouse
600W Stereo 2.1 Subwoofer Speaker
*AMD XP2000+ $858
*AMD Xp2400+ $1018

Pc4Home $768
AMD XP2100+CPU
ECS/Aopen MK73LE-N Mainboard
256MB SD RAM Pc133 , 4 USB
64MB 3D VIDEO,16BIT 3D Sound
10/100 Ethernet lan,1.44 FDDsony
40GB 7200rpm HardDisk Maxtor
16X LG DVD ROM
ATX P4 300W CASE(2USB front)
Ps2 Keyboard,HP Usb wheel Mouse
600W 2.1 Subwoofer Speaker
Monitor:17"LG700S
Or 17" Samsung750S
3Months Free Internet

Monitor Special
15" Samsung LCD TFT 151S $419
15"CTX S500 LCD TFT 350:1 Reacting time 13/27 $419
17"Samsung 755DF flat .20 1600x1200 $219
19"Samsung 955DF flat $339
19"CTX Flat EX95DF .25 1600x1200 $279

PC4ALL WinterSpecial
Intel P4 2.53GHZ B 533Mhz
INTEL P4 2.53G $998
512K533FSBRetail BOX CPU
Asus P4S533VML FSB533 6USB2.0 BOARD
256MB DDR RAM Pc266 2100
64MB 128BIT 3D Game Video CARD on.
3DAudio build In , 10/100 Ethernet card on.
40GB 7200 rpmHard Disk, 1.44 FloppyDisk
52X LG Powerfull CD-ROM
ATX 300W p/s P4 Case(2USB front)
Ps2 Multimedia keyboard,HP USB Weel Mouse
600W Stereo 2.1 Subwoofer Speaker
Monitor:17"Perfect Flat
Samsung 755DF .20
1600x1200dpi
Free Software: Pcworks Suite 2002 for the first 50 customers of system Pc4all purchased
*StarOffice *Print Artist 12 *Quicken 2002 *Photo Express
*McAfee VirusScan Online *MusicMatch Jukebox 7.0
*Encyclopedia Britannica 2002 *Stuffit Expander *Rand Mcnally

ECS LAPTOPS CORNER
TOSHIBA
DESKNOTE
D900 $1059
1GPro CPU/ 14.1"TFT
10G/256MB/LAN/4USB
56K Modem/ 8XDVD

Intel p4-1.8G $1428
Intel P4-2.0G $1468
Intel P4-2.4G $1528
256MB DDR /30GB/ DVD
56K Modem / LAN
4USB 2.0 /1394 /15" TFT

Intel p4-1.8G $1558
Intel P4-2.0G $1588
Intel P4-2.4G $1658
256MB DDR / 30GB / LAN
Modem/ DVD & CDRW
4USB 2.0 /1394 /15" TFT

All systems sold cover 5 Years Labour and 1 year Parts Warranty.All Systems and Price is Subject to change without notice,Prices are 3% Cash Discounted,By VISA ,3% More, Thanks!
Satellite Intel CEL-800 /128MB /15G /13.3"TFT /FDD /CD ROM /56K/ LAN /WIN ME $1228
Satellite4600 Intel PIII-800 /128MB /20G /14.1"TFT /DVD /FDD /56K /LAN /WIN 98 $1598
Satellite 1400 Intel Cel-1.8/256MB/ 20GB/14"/ DVD/CDRW/FDD/56K/LAN/WIN XP $1688
Fujitsu P4-1.7/256MB/30G/14"/DVD/CDRW/FDD/56K/LAN/WIN XP $2058

COMPUTER WAREHOUSE OUTLET | COMPUTER WAREHOUSE OUTLET | COMPUTER WAREHOUSE OUTLET | COMPUTER WAREHOUSE OUTLET | COMPUTER WAREHOUSE OUTLET

UNTIL SUPPLIES LAST SALE!!! UNTIL SUPPLIES LAST SALE!!!

COUPON
50 PACK CD-R
40X 80MIN 700MB

$13.99 REGULAR PRICE $14.99
QUANTITIES LIMITED WHILE SUPPLIES LAST.

COUPON
100 PACK CD-R
40X 80MIN 700MB

$24.99 REGULAR PRICE $29.99
QUANTITIES LIMITED WHILE SUPPLIES LAST.

COUPON
100 PACK CD-R + 2 CD CASES

$29.99 REGULAR PRICE $34.99
QUANTITIES LIMITED WHILE SUPPLIES LAST.

COUPON
24 CD WALLET
TARGUS
GREAT QUALITY

$2.99 REGULAR PRICE $4.99
QUANTITIES LIMITED WHILE SUPPLIES LAST.

COUPON
GEL MOUSEPAD

$2.99 REGULAR PRICE $4.99
QUANTITIES LIMITED WHILE SUPPLIES LAST.

COUPON
15" FLAT PANEL

BRAND NEW!! WITH SPEAKERS
$375.00 REGULAR PRICE $399.99
QUANTITIES LIMITED WHILE SUPPLIES LAST.

COUPON
NetGear 4 PORT 10/100 CABLE/DSL ROUTER

BRAND NEW!!
$59.99 REGULAR PRICE $79.99
QUANTITIES LIMITED WHILE SUPPLIES LAST.

COUPON
NEW 3 BUTTON PS/2 MOUSE
yenica

BRAND NEW!!
$1.99 REGULAR PRICE $4.99
QUANTITIES LIMITED WHILE SUPPLIES LAST.

COUPON
CELL PHONE EAR PIECE AND MIC

BRAND NEW!!
$2.99 REGULAR PRICE $4.99
QUANTITIES LIMITED WHILE SUPPLIES LAST.

COUPON
MICROPHONE OMNI-DIRECTIONAL
BENWIN

BRAND NEW!!
$1.99 REGULAR PRICE $4.99
QUANTITIES LIMITED WHILE SUPPLIES LAST.

COUPON
FM AUTO SCAN HEADSET RADIO

BRAND NEW!!
$4.99 REGULAR PRICE $9.99
QUANTITIES LIMITED WHILE SUPPLIES LAST.

COUPON
3X3" CASE FAN

BRAND NEW!!
$2.99 REGULAR PRICE $4.99
QUANTITIES LIMITED WHILE SUPPLIES LAST.

COUPON
SLOT EXHAUST FAN

BRAND NEW!!
$9.99 REGULAR PRICE $14.99
QUANTITIES LIMITED WHILE SUPPLIES LAST.

COUPON
TOSHIBA

Portege 7200
Pentium III 600
128MB Ram
12GB HD
DVD/SOUND
13" TFT
$999.99 REGULAR PRICE $1099.99
QUANTITIES LIMITED WHILE SUPPLIES LAST.

IBM WEBCAM USB

Xirlink PC Camera
BRAND NEW!!
$29.99

Palm IIIxe

8MB 16MHz OS 3.5 Cradle
$99.99

IBM LAPTOP 10/100 NETWORK CARD

32BIT CARDBUS
$24.99

Xircom 56k & 10/100

$49.99

PCMCIA 56K MODEM CARD

COMPAQ
$29.99

WIRELESS NETWORK 802.11B CARD

32BIT CARDBUS
$59.99

4 Port USB 2.0 PCMCIA CARD

BRAND NEW!!
$59.99

2 Port Firewire PCMCIA CARD

BRAND NEW!!
$59.99

MINIATURE CAR REMOTE CONTROL
BRAND NEW

$19.99

HAND HELD MICROPHONE
BRAND NEW

$12.99

128MB Laptop MEMORY

BRAND NEW!!
$49.99

Automobile Laptop Adapter
DC 15-24V

BRAND NEW!!
$49.99

2.5" USB 2.0 ENCLOSURE

BRAND NEW!!
$59.99

3.5" USB 2.0 ENCLOSURE

BRAND NEW!!
$79.99

P4 ATX CASE
WITH POWER SUPPLY

BRAND NEW!!
$49.99

5 Port USB 2.0 PCI CARD

BRAND NEW!!
$29.99

4 Port Firewire PCI CARD & CABLE

BRAND NEW!!
$39.99

ROUTER CARD 4PORT PCI

BRAND NEW!!
$49.99

WEB CAMERA Parallel Digital Web Cam
640X480 BRAND NEW!!

$24.99

Maxtor 60 GB

$139.99

Maxtor 80 GB

$149.99

Quantum 5.1 GB

$59.99

HEWLETT PACKARD USB Keyboard

BRAND NEW!!
$9.99

4 Port USB Hub

BRAND NEW!!
$9.99

D-Link 32MB MP3 PLAYER

BRAND NEW
$49.99

ALTEC LANSING PC/TV/GAME AUDIO SUB WOOFER

$39.99

CASIO PC TAG WRITER LABEL PRINTER

$39.99

6 in 1 USB Reader Writer
Compact Flash, Smart Media, Multimedia Card, Memory Stick, Secure Digital, Micro Drive

$59.99

SOYO SOCKET 370 MOTHERBOARD

BRAND NEW!!
$59.99

INTEL 1000MHZ & BOARD COMBO
1000MHZ + BRAND NEW!!

$159.99

INTEL 850MHZ & BOARD COMBO
850MHZ + BRAND NEW!!

$119.99

ATHLON 950MHZ MB & CPU COMBO
AMD Athlon 950MHZ + BRAND NEW!!

$139.99

ATHLON 700MHZ MB & CPU COMBO
AMD Athlon 700MHZ + BRAND NEW!!

$99.99

IBM ThinkPad 380XD
Pentium 233
64MB Ram
4.3GB HD
CD/SOUND
12" TFT

$325.00

IBM ThinkPad 390X
ntium III 450
128MB Ram
12GB HD
CD/SOUND
14" TFT

$949.99

IBM ThinkPad A21m
ntium III 800
128MB Ram
20GB HD
DVD/SOUND
14" TFT

$1499.99

TOSHIBA Portege 7200
Pentium III 600
128MB Ram
12GB HD
DVD/SOUND
13" TFT

$1099.99

LAPTOP P4 2.0GHZ
256MB
12GB
DVD

$1599.99

LAPTOP P4 2.0GHZ
256MB
12GB
CDRW
DVD

$1799.99

Tower CEL 800MHZ
128MB
6.4GB
CD

$299.99

Tower AMD 950MHZ
128MB
8.4GB
CD

$349.99

Tower AMD XP 1800+
256MB
30GB
CDRW

$499.99

Tower CEL 1000MHZ
128MB
9.8GB
CD

$375.00

Tower P4 2.0GHZ
256MB
30GB
CDRW

$649.99

Tower P4 2.0GHZ
256MB
60GB
CDRW

$699.99

Visit Us @ www.Cwo.ca

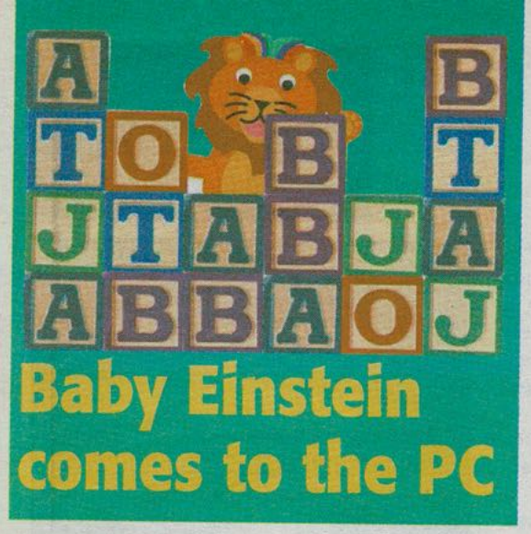
Store Hours
Monday - Friday 10:30 - 7:00PM
Saturday 10:00 - 5:00PM
(Scarborough Only) Sunday 12:00 - 5:00PM

NORTH YORK
1140 SHEPPARD AVE. UNIT 9
(W. OF DUFFERIN)
416-638-1662

SCARBOROUGH
1911 KENNEDY RD. UNIT 104
(N. OF ELLESMERE)
416-335-9964

22578414

PRICES AND AVAILABILITY ARE SUBJECT TO CHANGE WITHOUT NOTICE. WE ARE NOT RESPONSIBLE FOR ANY TYPOGRAPHICAL ERRORS.



Baby Einstein comes to the PC

By MARA GULENS

Although I have three kids under the age of five, *Baby Newton Fun With Shapes* is my first introduction to the massively successful Baby Einstein Company product line.

The line covers everything you can think of to stimulate and entertain children four years old and under, including videos, books, audio CDs, discovery cards, puppets and now, a PC "game." (That's game in quotes, since it's intended for kids one and up).

As the company's Web site explains, Baby Einstein products expose kids to "music, art, language, science and nature in playful, enriching ways." My sister's kids have the Baby Mozart video. Funny, given all the success, that we've never viewed it during the numerous visits to their house.

But back to the game. From what I gather, it's very similar to the other products in that it also takes simple shapes and concepts and maps them to music to provide the youngest of kids with a rich learning experience. Since I'm not familiar with the line (which, I gather from testimonials, leaves kids spellbound), I'll talk about the interactive CD-ROM in terms of itself.

The game begins with an install process that lets you choose between English and French. Curiously, that only applies to the install process itself, because the game is in English only.

Once in, the voice comes on and says "Baby Einstein." (I almost had a conniption when my 20 month-old daughter repeated the word "Einstein," clear as a bell). Baby Newton, the lion, I presume, then guides kids through various colourful landscapes, including the seashore and downtown, as various objects (pizza and cheese, for example) pop up to introduce kids to circles, squares, triangles and rectangles.

If the kids just sit by the computer, the images sort of move around, but the story doesn't progress. If they tap the space bar, the game goes on to the next scene. And this, in effect, is what this interactive CD-ROM is all about. A TV doesn't allow kids to do anything but watch and listen. The PC version lets kids watch, listen and click.

When our first child hit the age of one, we were very keen to let her have a go at the computer, and a shareware program similar to *Baby Newton Fun With Shapes* provided colours and shapes that exploded on the screen. But the music was cheap computer gibberish, and it wasn't much more than an opportunity to bang away at the keyboard.

Baby Newton Fun With Shapes, on the other hand, has unobtrusive Vivaldi in the background. Vivaldi, like Mozart, most likely has the same magical, mathematical properties that stimulate learning and development. But most parents already know that, and that's why we don't put kids to bed with heavy metal music, continue buying all those cuddly rainbow-coloured baby products and read books to our children.

Baby Newton Fun With Shapes takes the tried and true elements from the other products – the books, the videos and the CDs – as well as the convincing arguments that New Age parents go for, and puts them together in an interactive CD-ROM.

You can take this medium or leave it. But once your child has had a go at *Baby Newton*, you better bet it'll be hard to stop them from toddling towards the computer chanting "Einstein ..." ◆

more INFO

Baby Newton Fun With Shapes
$29.99
Disney Interactive
www.babyeinstein.com; www.disneyinteractive.com
For kids 12 months and up

Requirements:
Pentium 166 MHz or faster, Windows 95/98/ME, 8x CD-ROM drive, 32 MB RAM, 60 MB free hard disk space, 16-bit DirectX-compatible sound card, 16-bit colour, DirectX-compatible 4 MB video card

Kidproof your computer files

By MARA GULENS

Like anything to do with computers and kids, it all starts with the two P's: Proper PC Usage and Parental Supervision. Listen to the sage advice of Myles Kesten, president of the CD-ROM Store.

One of the new features of Windows XP (which comes with new PCs) is that it "allows individual users to be set up with passwords and protects all the settings of other users," says Kesten. This means that Little Joe will in a sense be working on his own version of the computer and won't be able to mess with what dad has set up.

For people paranoid of their children deleting files, Kesten recommends the following:

- *Roxio GoBack*: This utility mirrors hard disk activity and allows users to go back in time if a major deletion, corruption or virus has occurred.
- *Norton Ghost*: This utility mirrors and backs up the hard disk on a separate back up media, such as a second hard disk, a Zip drive or a CD-writer.

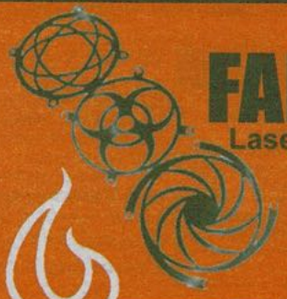
Here's the advice Kesten gives people who have recently purchased a new system:

- Immediately make a Windows start-up diskette in case of system failures;
- Copy all system driver CDs, operating system CDs and major office suites onto CDs and put the copies in a bank safety deposit box;
- Register all licences and keep hard copies in the safety deposit box;
- If you're using Internet dial-up, purchase anti-virus software. If you're using high-speed Internet, get anti-virus software and a firewall;
- Read the Read Me files that accompany new software. They often come with useful last minute information.

If you're encountering problems with games you've purchased, check out Kesten's tips at www.cdromstore.com (go to Software and Hardware Tips/Reviews). ◆

Est. since 2001 Serving Canadians Nationwide with **No Handling Fees** and **Low Shipping**!

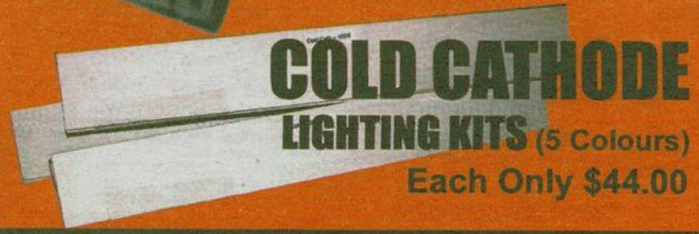
HIGH PERFORMANCE
Panasonic
PANAFLO
Case Fan 80mm
Each Only $14.00



FAN GRILLS
Laser Cut 80mm -120mm
Each $22-24

Visit us online!

We cater to gamers, over-clockers and pc enthusiasts!



COLD CATHODE
LIGHTING KITS (5 Colours)
Each Only $44.00

TWEAKBOX.com
change the system

We sell **Rounded Cables** - **Aluminum Cases** - **Cooling** - **Lighting** - **PSU's** - **Split Loom** - **Windows** and much more!

FEATURE

Good times at Mac love-in

Macworld post-show report

Macworld Conference & Expo

By DAVID TANAKA

It was, according to a fellow Canadian journalist we bumped into – and a seasoned writer on things Apple – a pretty good Macworld. We'd concur. In a post-show news release, organizer IDG World Expo stated that 90,473 people attended and more than 330 companies participated in the Jan. 6-10 event, now in its 19th year.

During his keynote address to a full house at the Moscone Center in San Fransisco, Apple CEO Steve Jobs gave his usual Apple versus that other platform state of the union address, but then launched into a series of new product announcements covering both hardware and software. With the announcement of two new PowerBooks, he claimed that Apple has the biggest and smallest full-featured notebooks on the planet. In a separate briefing, *TC!* met with Apple product managers who let us play touchie-feelie with a couple of units. Our impression of the 17-inch PowerBook: Wow! We initially feared that the 17-inch widescreen display would make the unit lid-heavy, but it seemed to be well balanced, and at about 3 kg (just under 7 lb.), very light given its dimensions.

Among the new software Jobs announced during his keynote were a repackaging of *iPhoto*, *iTunes*, *iMovie* and *iDVD* into a product called *iLife*, which will ship with all new Macs. But this is not mere cosmetic repackaging, said Jobs. The applications have all been rewritten to be more interoperable.

A couple of brand-new products surfaced: *Safari*, which is an OS X-only Web browser, and *Keynote*, a presentation package that Jobs said he'd used for all his keynote presentations in 2002. We've downloaded the beta version of *Safari*, and initial impressions are that it is speedy, although we can't confirm that it's three times as fast as *Internet Explorer*, which Apple claims it is. But the simplified interface is very attractive. Notable features in *Safari* are a built-in Google, a SnapBack button that takes you back to the original entry point of a search (also works with the URL navigation bar), and a customizable favourites bar that you can load up with your favourite Web site addresses.

Pocketbook-challenged video producers will be happy to know that Apple also introduced *Final Cut Express*. This is *Final Cut Pro* with some of the advanced professional features removed, and with a price tag of $450.

On the floor

The 300-plus exhibitors that took part in the trade show portion covered the full gamut of personal computing. As one might expect, there were a lot of products devoted to Internet and multimedia production, although on the flight back, we talked to one chap who works for a Markham company that has developed a CRM (customer relations management) application for OS X.

Winnipeg-based Mac developer, eZedia Inc. (www.ezedia.com), announced a couple of new products at the show: *eZeMotion for iMovie* and *eZediaQTI*. *eZeMotion* is a plug-in for *iMovie*, and allows users to animate elements such as text and graphics along a path and layer it over video. *eZediaQTI* is a *QuickTime* authoring environment that allows a developer to establish interaction points or object animation paths and then export the production to an interactive *QuickTime* movie format.

ThinkFree Corp., of Cupertino Calif. (www.thinkfree.com), was showing its *MS Office*-compatible *ThinkFree Office* suite, which can be downloaded for US$49.95. The suite has *Write*, *Calc* and *Show*, which are compatible with *Word*, *Excel* and *PowerPoint*. The unusual feature of this product is that it is written in Java, so that it will run on OS X, OS 8.6 or above and Windows. We tried the software on an iBook and found it more sluggish than *Word*, but we could go back and forth on the same document with the two word processors with no problems.

When we asked a representative from MacSpeech Inc., of Bedford, New Hampshire (www.macspeech.com), what distinguished its *iListen* voice dictation software from *IBM ViaVoice*, he laughed and said "*iListen* works." *iListen* allows dictation directly into most applications, plus command and control.

U.K. developer DrawWell Technologies Ltd. (www.drawwell.com) was showing an OS X desktop publishing and illustration package called *WorksWell* (US$99).

Rain Design, of San Francisco (www.igo4mac.com), showed two workstations dedicated to the new iMac. These are very cool designs, looking a bit like plant stands, with chrome legs converging to a small pedestal just big enough to hold the circular iMac base. A separate platform holds the keyboard, mouse and speakers. ◆

A.G.Computers. 366 Bloor Street East, Toronto, ON, M4W 1H4 North West Corner of Bloor and Sherbourne St.
416- 967 7485, Fax 416- 967 9564, E-mail agsales@agcomputers.com. Visit Our web-Site for Up Dated Price www.agcomputers.com

Pentium 4 Motherboard Intel CPU
256 MB Memory
40GB Hard Disk Drive
1.44 Floppy Drive
48x10x40 CDR-W
32Bit 3D Sound
56K Fax Modem,
10/100 LAN Card
Speakers
32 MB 4x AGP Video Up to 64
Mouse/Pad, Win98 Keyboard,
17" NI SVGA Monitor .27dpi
300w P/S MID Tower Case, 1 Serial
1 Parallel, 4 USB Port.
Pentium-4 1.8Ghz $799

AMD1400+GHz CPU
AMD Motherboard
256 MB SDRAM
40GB Hard Drive
48x10x40 CDR-W
1.44 Floppy Drive
AGP Share Video
32Bit 3D Sound
56K v.92 Fax/Voice/Dat
Win 98 Keyboard
Mouse, MID Tower Case
1 Serial, Parallel, USB Port
17" NI SVGA LG Monitor
XP1400 + 17" Monitor $649

Pentium -4 2.4Ghz 533 with 15" LCD $1499
Intel 845E 533 ATX Motherboard
Intel Pentium CPU, 256MB DDR Memory
80GB Hard Disk ATA-100 7200rpm
16xLG DVD-ROM, 48x10x40 CDR-W, 1.44 Drive
64MB Geforce-4 AGP Video Adapter, T.V Out
Creative Live Sound Adapter 5.1
56K Fax Modem w/ Voice, Fax
Internet Win 98 Keyboard, PS/2 Optical Mouse
ATX 4Bay Tower Case, 2 Serial Port and
1 parallel Port, 4USB 2.0 Port
15" NI LCD Monitor
IBM Sub-Woofer + Speakers

World Smallest PC
with standard size
Hardware, CPU, P4 2.0 CPU
Memory, 40GB 7200rpm,
256MB DDR, 10/100,DVD
CDR-W, 3D Sound
IEEE 1394 Port, USB 2.0
Parallel, Serial and Micro Mini Case
Two different Brand Name
www.msi.com.tw
www.shutleonline.com

Note Book Special

Pentium 4- 2.4 Ghz $1599.00
256MB DDR,20GB Hard Drive, DVD+ CDR-W,
56k Modem, 10/100 LAN, 15" TFT Screen
IEEE 1394 Firewire port , 4 USB 2.0
Pentium 4-1.7Ghz $1399.00
256MB DDR, 20GB Hard Drive
DVD, 56k Modem, 10/100 Base LAN
14" TFT Screen, IEEE 1394 Firewire port
4 USB 2.0.
Intel Celeron 1.3Ghz $1139.00
128MB DDR,10GB Hard Drive
DVD, 56k Modem , 10/100 Base
14" TFT Screen

Brand New (Only $599)
Toshiba AMD K6-2 350, CD-ROM ,and
Floppy, Battery, HDD, Notebook

Toshiba C1800Mhz $1599
Toshiba C1800 $1449(NO CDR-W)
20GB Hard Drive, 256MB DDR
DVD ROM, CDR-W,LAN, Modem
15" LCD Screen,USB 2.0
IEEE 1394 Digital Video In/Out
1.44 Floppy, Battery Win XP

Used Notebook
Dell P-3 500,128MB,12GB, 12", CD,FD $845
Dell P-3 650 256MB, 12GB,14" CD,FD $900
Tosh P-2 333,96MB, 4.0 GB,CD,FD $499
Pentium, 233MMX, 164MB, 5.0GB, $349
P3-400, 128MB, 8.0GB, 14.1", Trackpoint $749
P3-400, 128MB, 6.0GB, 14.1", CD, Modem $749
P-2 266, 160MB, 4.0GB, 12.1', CD $439
P-2 233, 80MB, 4.0GB, 13.3", CD, $499
P-2 300, 128MB, 4.0GB, 14.1", CD, $529

Notebook Accessories
PCMCIA USB 2.0 3port $119
4Port USB 2 HUB $42
3.5" HDD External Case $119
2.5" HDD External Case $69
16x10x40 External CDR-W $159
256MB USB Handy Drive $149
USB NIC 10/100Adapter $34
PCMCIA Firewire Card $139
PCMCIA56kV.90/100 $49

ROM Drive
LG 48x10x40 $72
LG 52x10x40 $84
LG 52x10x40 $81
DVD+CDR-W 32x $139
52x CDROM Drive $29
HARD DRIVE
40GB 7200rpm $115
60GB 7200rpm $129
80GB Maxtor 7200 $149
120 Maxtor 7200 $224

Pine MP3+CD Player $79
Samsung MP3+CD Player $99
4inOne Digital Cam/MP3/Voice $159
DIGITAL CAMERA
SONY DSC P31 2.0Mega Pixels $329
SONY DSC P51 2.0Mega Pixels $400
KodaK DX 3700 2.1Mega Pixels $369
Kodak LS420 2.1Mega Pixels $359
HP Photosmart 120 1.0Mega Pixels $159
HP Photosmart 318 2.1Megapixels $229

LCD
15" LCD $399
15" LCD MM $449
15" LCD LG $479
17"LCD $649
17"LCD + T.V $699
17" LCD $729
17" Digital RB $849
17" Viewsonic Call
19" ViewSonic Call

Prices are already Cash discounted. Paying by Credit card 3% will be Charged extra.
We accept VISA, Master Card
A.G.COMPUTERS IS NOT LIABLE FOR ERRORS OR OMISSIONS 22578614

GET THE EDGE ON THE NEW YEAR!

SECURE SHOPPING ONLINE!
www.edgeworld.net

WEB HOSTING NOW AVAILABLE
call the Oakville Store For Details

EDGE PC

the COMPUTER EDGE

Where Service Is The Difference!

Mon-Fri: 10am-7pm • Saturday: 10am-6pm
ETOBICOKE STORE OPEN AT 8AM MON. - FRI.

ON SITE SERVICE & NETWORK SOLUTIONS AVAILABLE

- Wiring (PC, Phone & Fibre Optic)
- Internet & Printer Sharing
- Home & Office Setup
- Lan's to Wan's

Call Etobicoke Store For Details
(416) 252-4868

Hard Drives

5400RPM UDMA66/100

20GB Ultra-100 EIDE	$94.83
40GB Ultra-100 EIDE	$109.83
60GB Ultra-100 EIDE	$129.83
80GB Ultra-100 EIDE	$149.83
120GB Ultra-100 EIDE	$229.83
160GB Ultra-100 EIDE	$384.83

7200RPM UDMA133

20GB Ultra-133 EIDE	$109.83
40GB Ultra-133 EIDE	$129.83
60GB Ultra-133 EIDE	$144.83
80GB Ultra-100 EIDE	$169.83
120GB Ultra-100 EIDE	$249.83
180GB Ultra-133 EIDE	$449.83
200GB Ultra-133 EIDE	$499.83

CALL FOR UP TO DATE SCSI PRICING

Motherboards

ASUS:

P4B Socket 478, AGP, Intel i845 3 Dimm	$159.83
P4B 533 Socket 478, AGP, Intel i845 DDR	$199.83
P4T 533-C Socket 478 Intel i850 4 Rimm	$249.83
P4S 533 Socket 478 SIS 645 DX DDR	$159.83
A7N266, Socket A, Nvidia nFORCE 420 DDR	$199.83
A7V333-E Raid Socket A, Via KT333 DDR	$209.83

ABIT:

BD7II-Socket 478 Intel 845 DDRRAM	$149.83
BD7II-RAID,Socket 478 Intel 845 DDRRAM w/raid	$169.83
Bg7 Socket 478 Intel 845 Video & DDR	$179.83
IT7 Socket 478 Intel 845 Video & DDR	$229.83
KX7-333 Socket A Via K2333 DDR	$129.83
KX7-333RAID Socket A Via K2333 DDR	$149.83
KD7Socket A KT400 8x AGP	$189.83
KD7Socket A KT400 8x AGP w/Raid	$219.83

ECS:

K7S5A SIS735 2DDR 266 FSB w/L/A	$89.83
K7SEM SIS7302 DIM 266 FSB w/V/A/L	$99.83
P4 S5A SIS645 2DDR w/A/L	$99.83
P4V XAD-Raid 533 FSB DDR w/A/L/Raid	$129.83

Sound Cards

Creative Labs:

Soundblaster PCI 128 OEM	$29.83
Soundblaster *Live* Value 5.1 OEM	$49.83
Soundblaster Audigy Value OEM	$94.83
Soundblaster Audigy 2	$189.83
Soundblaster Audigy 2 Platinum	$279.83
Soundblaster Audigy Platimun Retail	$219.83
Soundblaster Extigy Retail	$214.83
Soundblaster Audigy Platimun EX Retail	$344.83
16Bit PCI/ISA Stereo Sound Card	$19.83

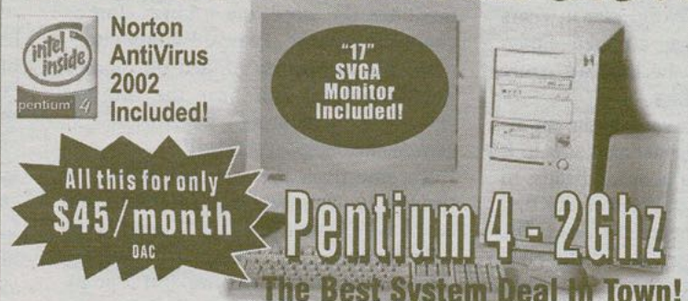
EDGE PC CHOICE SYSTEM

CD-RW & DVD At This Low Price!!!

Norton AntiVirus 2002 Included!

"17" SVGA Monitor Included!

All this for only $45/month OAC



Pentium 4 - 2Ghz
The Best System Deal in Town!

- Intel Pentium 4 Motherboard
- 256MB PC 266 DDR Ram
- Nvidea G-Force4 64MB AGP Video Card
- 40GB UDMA133 7200 RPM Hard Drive
- 104Key Windows'98 PS/2 Keyboard & Mouse
- 1.44MB Floppy Drive
- 40x12x40 CD-RW
- 16X DVD Drive
- 16Bit 3D Sound Card
- 280W Stereo Speakers
- MS WindowsXP Home
- 56k V.90 PCI Voice/Fax Modem
- 10/100 Network Card

$1299.83

EDGE PC VALUE

Great Value System!

- Elegant Mid Tower ATX Case
- 256 MB RAM
- 30GB UDMA133 Hard Drive
- 32 MB AGP Video Card
- 104 Keyboard & Mouse
- 52X Int CD-ROM Drive
- 16 Bit Stereo Sound
- 120 Watt Amplified Speakers
- 56K V-90 Voice/Fax Modem
- 10/100 Network Card

MD Duron 1.2 Ghz	$469.83	or $21/month
AMD XP 1.7 Ghz	$499.83	or $25/month
Intel Celeron 1.7 Ghz	$479.83	or $23/month
Pentium 4 - 1.7 Ghz	$599.83	or $27/month

EDGE PC EXTREME

Ultimate Power & Performance

- Elegant Mid Tower ATX Case
- 512 MB DDR RAM
- 80 GB UDMA133 7200 RPM Hard Drive
- N-Videa G-Force 4 TI 4200 128MB AGP Video Card
- 104 Keyboard & Mouse
- 16X Int EIDE DVD Drive
- 40x12x40 Internal CD/RW Drive
- 16 Bit Stereo Sound
- 120 Watt Stereo Speakers
- 56K V-90 Voice/Fax Modem
- 10/100 Network Card

AMD XP 2100 Plus	$1159.83	or $26/month
AMD XP 2400 Plus	$1329.83	or $27/month
Intel P4 - 2.4Ghz	$1329.83	or $28/month
Intel P4 - 2.8Ghz	$1679.83	or $30/month

DO-IT-YOURSELF UPGRADE!

Packaged & Ready to Pick Up Today!

INCLUDES:
- Intel P4 2 Ghz CPU
- New P4 Case with 300W p/s
- P4 Motherboard
- 256 MB Ram
- 10/100 NIC
- 3D Sound

$499.83

CD-Roms

52X EIDE CD-Rom Drive	$39.83
16X EIDE DVD-Rom	$59.83
32x10x40 x 16 DVD-CD/RW Combo Drive	$139.83
40x12x48 EIDE CDRW-Drive	$89.83
48x12x48 EIDE CDRW-Drive	$99.83
Yamaha 44x24x44 Internal CD/RW	$179.83
Plextor Plexwriter 48x24x48 CDRW Drive	$199.83
Pioneer DVD-RW & CD-RW Drive	$469.83

VideoCards

ATI:

ATI Radeon 7000 64 MB DDR AGP	$69.83
ATI Radeon 7500 64 MB DDR AGP	$99.83
ATI Radeon 9000 64 MB DDR AGP	$109.83
ATI Radeon 9000 128 MB DDR AGP	$139.83
ATI Radeon 9000 Pro 128 MB DDR AGP	$169.83
ATI Radeon 9700 Pro 128 MB DDR AGP	$519.83
All-In-Wonder Radeon 7500 AGP 64 Mb DDR	$189.83
All-In-Wonder Radeon 8500 DV 64 Mb DDR	$259.83
All-In-Wonder Radeon 8500 DV 128 Mb DDR	$429.83

NVIDIA:

GeForce 2 MX 400 64Mb SDRAM AGP	$84.83
GeForce 2 MX 400 64Mb SDRAM AGP w/TV Out	$79.83
GeForce 4 MX 440 64Mb DDR w/TV Out	$119.83
GeForce 4 TI 4200 64Mb DDR w/TV Out	$199.83
GeForce 4 TI 4200 128Mb DDR w/TV Out	$229.83
GeForce 4 TI 4400 128Mb DDR w/TV Out	$349.83
GeForce 4 TI 4600 128Mb DDR w/TV Out	$429.83

Networking

Cards / Adapters:

ISA / PCI 10/100 NE2000 NIC	$14.83
Dlink 538TX PCI 10/100 NIC	$24.83
3Com 905TX PCI 10/100 OEM NIC	$54.83
LinkSys USB-RF45 10/100 Adapter	$39.83
LinkSys PCMCIA 10/100 NIC	$79.83

Hubs:

5 Port 10MB	$29.83
5 Port 10/100MB	$49.83
8 Port 10MB	$39.83
8 Port 10/100MB	$59.83
16 Port 10MB	$99.83
16 Port 10/100MB	$149.83

Routers:

D-Link 4 Port Cable/DSL Router	$99.83
Linksys 4 Port Cable/DSL Router	$109.83
SMC 4 Port DSL Roufer with Print Server	$109.83

Modems:

56K V.92 PCI Voice/Fax Modem	$24.83
A-Open SM 56k V.90 PCI Voice/Fax Modem	$29.83
A-Open PM56k V.90 PCI Voice/Fax Modem	$49.83
A-Open 56k V.90 ISA Voice/Fax Hdwr Modem	$69.83
USR56k V.90 PCI Ph/Fax Hdwr Modem	$89.83

BUY USED & SAVE

DELL USED MONITORS
Get them while they last
17" as low as $99.00
19" as low as $149.00
20" as low as $179.00
21" as low as $199.00

DELL USED LAPTOP
DELL LATITUDE CPI, P2-366 128MB 6.4GB, CD, SOUND, 13.3"TFT
Free Case! $799.83

DELL USED COMPUTER
P2-350 64MB, 6.4 GB, CD, NIC, Sound, K/B, Mouse
Save Big! $249.83

DELL USED COMPUTER
P2-400 128MB, 6.4 GB, CD, NIC, Sound, K/B, Mouse
Save Big! $299.83

DELL USED COMPUTER
P3-450 128MB, 6.4 GB, CD, NIC, Sound, K/B, Mouse
Save Big! $349.83

DELL USED COMPUTER
P3-500 128MB, 6.4 GB, CD, NIC, Sound, K/B, Mouse
Save Big! $399.83

BLOWOUT DEALS!!!

50 CD SPINDLE
Buy Now before price increases $19.83

CD-RW
40X10X40 Internal EIDE
Limited Quantities
$89.83

WEB CAM
USB
Great Deal!
$49.83

Wireless Networking

Wireless Access Point 4 Port	$169.83
Wireless PCI Card	$119.83
Wireless PCMCIA Card	$119.83
Wireless USB Card	$119.83

CASE MODS AVAILABLE
- Clear Cases
- Neon Lights
- Side Windows
- Fan Grills
- Round Cabling

See In Store For Details

BLUE THUNDER
Mini Drive (USB Drive)

64MB	$79.83
128MB	$119.83
256 MB	$199.83
512 MB	$459.83

BLUE THUNDER
CF Card Reader/Writer (USB)
Great Price!
$44.83

Etobicoke
3369 Lakeshore Blvd W.
Phone (416)252-4868
Fax (416)252-1475
E-mail: etobicoke@edgeworld.net

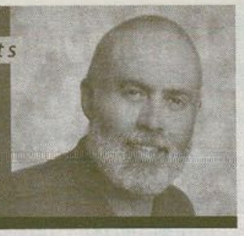
Brampton
10069 Hurontario St.
Phone (905)840-0902
Fax (905)840-3710
E-mail: brampton@edgeworld.net

Oakville
2387 Trafalgar Rd Unit E.
Phone (905)257-0082
Fax (905)257-1302
E-mail: oakville@edgeworld.net

Mississauga
55 Dundas St E Unit 2
Phone (905)281-3893
Fax (905)281-3895
E-mail: mississauga@edgeworld.net

The Computer Edge is not responsible for misprinted text or typographical errors. All Logo's are trademarks of their respective owners. All prices are 3% cash discounted. Leasing rates quoted are approximate and based on first and last month's advance payment. Please call ahead for stock levels and to reserve your order. All applicable taxes are extra. Prices subject to change without notice and may vary by geographic location.

CP February 2003



Alan Thwaits

The World Is My Cubicle

Some Spammish thoughts ...

Spam's been getting a lot of press for quite a while now. Not surprising, I guess, since it happens to all of us. It's been one of the unlooked-for consequences of the ubiquity of the Internet. Sure, we can e-mail Grandma in Hoboken, connect with tiddliwink sites in Japan and download images that are graphic in more ways than one. And let's not forget that the Net is one of the tools that's used to the fullest by the military mucky-mucks of nation-states all around the globe, both the White Hats and the Black Hats. The Internet is great.

But who would have thought that the miracle of global communication would have brought spam to everyone's virtual doorstep? It's here, though, and it's ours, so we might as well get to know it. Herewith, some history, some reflection and a burning question or two from your friendly correspondent on the subject of spam.

Spam, the real stuff, was invented in 1927 in Minnesota. The "distinctive chopped pork shoulder and ham mixture" was developed by Jay C. Hormel, son of George A. Hormel, the founder of the Hormel Company, and was originally marketed as "Hormel Spiced Ham." The name was changed to "Spam" after a contest was initiated by Hormel to counter the efforts of imitators.

In 1937, a version of Spam was developed that needed no refrigeration. That's when sales really took off. Spam became an essential part of the rations of American soldiers in World War II. Years later, Nikita Kruschev credited Spam with the survival of the Russian Army during the same conflict.

Not content with invading the stomachs of the public, Hormel also saw to it that the stuff got into people's heads. In 1940, Spam was the subject of the first singing commercial heard on radio. The jingle was sung to the tune of the chorus of "My Bonnie Lies Over the Ocean." For those whose curiosity is insatiable, the lyrics were "Spam, Spam, Spam/ Hormel's new miracle meat in a can/ Tastes fine, saves time,/ If you want something grand,/ Ask for Spam!"

Fast forward a couple of decades. In the second series of *Monty Python's Flying Circus*, the Pythons "celebrated" the famous luncheon meat in their now-legendary Spam skit.

The skit takes place in a cafe. At one table are a number of Vikings, all wearing horned helmets. A man (Eric Idle) and his wife (Graham Chapman, in drag) enter the cafe and sit at a neighbouring table. The waitress (Terry Jones, also in drag) offers various menu choices, all of which involve Spam. Whenever she mentions the word, the Vikings sing or chant in response. Typical Python craziness, but its success hinged on Spam's notoriety. (You can hear the original skit, via streaming RealAudio, at www.detritus.org/spam/skit.html)

The line from the skit that echoes in the minds of present-day Internet users is the wife's plaintive cry, "I don't want ANY Spam!"

No ma'am, and nor do we. But it pours into our mailboxes, day after day. It's about mortgage rates and inkjet printer cartridge offers that can't be beat. It's about offers to modify the size of various body parts. It even comes in the form of flattering messages direct from Nigerian bankers, or the wives of recently-deposed dictators, who need our help to get back on their feet again. It's annoying, time-consuming and sometimes downright offensive.

But you know what? Internet spam isn't really very different from a lot of the other nonsense that comes into my personal space. I didn't ask the landscape to be littered with billboards touting the latest and baddest SUV or the hair colour that's going to optimize my sex life. I didn't ask that some near-adolescent telemarketer interrupt my peaceful evening with his unctuous, grasping questions. It's all an invasion of my space, and it's all repugnant.

So why is all the fuss being made on spam? Because it's new? Because it comes via the Internet, the media's favourite whipping-boy? Or is it simply because spam hasn't – yet – become the vehicle of big, socially-approved corporations? If it's the latter, then heaven help us – things are only going to get worse.

Alan Thwaits, a *TC!* Contributing Editor, is a freelance journalist who writes about computer, communications, and business technologies. He can be reached at praxis@pathcom.com. ◆

The joys of the trailing edge

I like being on the trailing edge of technology. Back when I first started with computers, I loved being on the leading edge. There is a big difference between the two, and each position has its advantages and disadvantages. However, I've now decided that the trailing edge is for me.

Go with a winner

If you are on the trailing edge of technology, you already know what has been successful and what has crashed and burned. History shows that trailing-edgers can save a lot of headaches and money; just recall the famous VHS versus Beta wars of the early 1980s. Did you rush out and buy Beta or did you wait and put your money on VHS? After a good chunk of time, my family went with VHS. And just before Christmas last year, I finally joined the 1990s and bought a DVD player.

Or how about a handheld computer? Did you buy an Apple Newton or did you wait for Palm and Pocket PC to revolutionize the industry? I love my Palm IIIc. Sure, it is not as flashy as the latest Palm Tungsten or the Sony NR70, and I don't get to brag to my friends. However, it does the job very well and I know what accessories are available.

Save money

A big reason for sticking with the trailing edge is that your purchase prices are always lower.

I picked up a digital camera attachment for my Palm for less than 40 per cent of its regular retail price, and a Palm folding keyboard for my wife's Palm III for only $25. I recently doubled the RAM in my old 486 notebook for less than $40. Sure, the Palm IIIs are no longer being made and my notebook was discontinued years ago, but surplus stock abounds if you have the time and patience to find it.

If you've perused the ads in this issue of *Toronto Computes!*, you will notice that many stores now focus on clearance items or older stock. Some items are available at an incredible bargain. Ever want a notebook? You can buy one for less than $500.

Honest reviews abound

Another advantage of the trailing edge is you can get a better feel for the performance and reliability of products based on others' experiences. By talking to friends, relatives or reading postings on the Internet, it is fairly straightforward to obtain reviews and opinions. Need help getting that older accessory working? A quick visit to Google may be all you need to ensure happiness. A problem I find with the leading edge is that much of the media wants to sugar-coat how great a product is. End-user reviews are always the way to go, and you only get those once a product has been on the market for a while.

Support

You also have an advantage of excellent hardware and/or software support and you can almost always ensure compatibility with trailing edge technology. For example, if you bought the leading-edge Palm Tungsten PDA, you will quickly find that you can only acquire a few accessories for it, and not much software is available to take advantages of its new features.

Those who installed Windows XP over Windows 98 may have been in for a surprise when they learned that some of their hardware was not supported. Besides, I don't care if Windows XP doesn't support my hardware, because I am still running Windows 98SE without any problems and don't need to upgrade.

Trailing-edge thoughts

I used to be on the leading edge and poked fun at people who were stuck on the trailing edge. But as time went on, I have found myself mired on the trailing edge of technology. If you focus on slightly older technology, you don't need the up-to-date software support that comes with the latest-and-greatest. You have a lot of support from other sources such as friends and the Internet, and most computer users are smart enough to handle any little problems on their own.

I really like being able to buy surplus items at (what I consider are) great prices, and I personally can't afford to purchase a new PC every 6 months or so.

Personal e-mail to Kevin Linfield, P.Eng. can be sent to linfield@rocketmail.com. ◆

POWERFUL INTERNET SOLUTIONS...

"Serving Canada since 1997"

★ SPECIALS ★ Valid until March 31st 2003

UNLIMITED INTERNET ACCESS
$10.95 /MONTH
- 5 E-mail accounts
- 25MB Web Space
- Virus & Spam Filter

HIGH SPEED ADSL
$29.95 /MONTH
- $29.95/month for the first 3 months ($34.95/month there after)

PROFESSIONAL WEBSITE HOSTING
FROM $10.95 /MONTH
- 40MB Web Space
- E-mail accounts
- 24x7 Technical Support

www.mycybernet.net

Prices are based on annual pre-payment

★ NEED A WEBSITE ? ★

- Website Design & Development
- Website Re-design
- e-Commerce Solutions
- Custom Applications
- Database Integration
- Maintenance & Updates
- Corporate Identity

▶▶▶ Call Today!

MBT MARKHAM BOARD OF TRADE

BBB

The web.solvers

20 Amber Street, Suite 16 Markham, Ontario, L3R-5P4

22584614

Internet & Hosting Solutions - sales@mycybernet.net CALL 905.947.1801 Web Design & Development - sales@thewebsolvers.com

CP SUPER STORE

Super Special Madness February Month 2003

We offer customers one stop shopping. We stock most of the products. We have the most of Hardware Products selection at North-West of Toronto. When you buy a computer system from us, you also receive our experienced hardware technical support/service for future upgrade free of charge.

AMD Duron 950 MHz $ 378
ATX Motherboard, 2-USB
256MB MB PC-133 Memory
10GB 7200RPM Ultra Hard drive
Samsung 1.44MB Floppy Drive
8MB AGP 3D Video Card
Logitech Enhanced Windows Keyboard
Logitech Scroll Wheel Mouse
Harmon Kardon Amplified Stereo Speakers
Enhanced ATX Mid tower Case, 2x Fan

10 disk Slim Jewel Case 900MB, 99Min. 1x~32x $ 15.00

5disk Pak 80min 700MB, 1x~16x
Overburn: 82min $ 4.00
CD-RW 4~12x 10Pak, 80min
Overburn: 81:34.27
700MB $ 16.00
CD-RW 4~12X 30disks, 80min
Overburn:81:34.27
700MB $ 40.00
50disks Cake Box 1x~42x, 80min
Overburn: 81:36.67
700MB $ 20.00

ePreformance 1x~32x, 80min, 700MB
Overburn: 81:30min
25disks $ 9.00
50disks $ 16.00

Prince 50disk 700MB, 80Min
Overburn: 82Min
1x~48x $ 18.00

Xcitek Professional CD-R
100disk Spindle 700MB, 80Min
LG Burner: 1x~40x
MSI Burner: 1x~48x
Capacity: 79:59.74(max 82:13.15)
First Error: 61:51.89
Total error: 0
Extra space: 1:52.89
$ 35.00

Maxtor 7200rpm, 2MB, 8.5ms ATA133, 40GB/platter
1 Years Factory Warranty
40 GB $ 129.95
60 GB $ 139.95
80 GB $ 169.95

Samsung 3 Years Warranty 2MB ATA100
80 GB 7200rpm $ 169.95

Western Digital 7200rpm, 8.9ms
BB 1 Year Factory Warranty
JB 3 Years Factory Warranty
20 GB BB 2MB $ 109.95
40 GB BB 2MB $ 129.95
60 GB BB 2MB $ 149.95
80 GB BB 2MB $ 169.95
100 GB BB 2MB $ 199.95
40 GB JB 8MB $ 139.95
80 GB JB 8MB $ 189.95
120 GB JB 8MB $ 289.95
200 GB JB 8MB $ 549.95

Intel 56k V92 Fax PCI $ 19.95
16bit PCI Sound Card $ 17.95
SB 128Voice PCI, Wavetable $ 29.95
SB Live 256 Voice PCI $ 49.95
SB Live Audigy 24bit, PCI $ 99.95
BenQ 56x EIDE CD-ROM, R.B. $ 39.95
BenQ 48xW/16xRW/48xR, R.B. $ 84.95
LG 52x EIDE CD-ROM $ 39.95
LG DVD-ROM 16x Internal $ 64.95
LG DVD/CDRW DVD16x/32/10/40 $129.95
LG 40xW/12xRW/40xR,software $ 79.95
LG 48xW/24xRW/48xR,software $ 89.95
MSI 52x EIDE CD-ROM $ 39.95
MSI DVD-ROM 16x Retail Box $ 69.95

KDS 17" 0.23mm SVGA Monitor $ 179.95
LG 17" 0.23mm SVGA Monitor $ 179.95
BenQ 15" FP557 LCD 350:1, $ 439.95
BenQ 15" FP567 LCD 350:1, 0.28, Spk $ 499.95
BenQ 17" FP781 LCD 350:1, 0.26, Spk $ 779.95

Samsung 3 Years Parts & Labour Warranty
17" 753DF 0.20mm. DynaFlat Screen 1280x1024@45Hz, BW: 110MHz $ 209.95
17" 763DF MagicBright 0.20mm. DynaFlat Screen 1280x1024@45Hz, BW: 110MHz $ 259.95
19" 950B 0.22mm. 1600x1200@66Hz, Max. BW: 135MHz $ 269.95
19" 955DF 0.20mm. DynaFlat Screen 1600x1200@65Hz, BW: 135MHz $ 349.95
19" 957MB 0.20mm. MagicBright DynaFlat tube, TCO 99, 1920@75Hz,BW: 250MHz, $ 429.95
15" 151S 0.297mm TFT $ 469.95
15" 151S 0.297mm TFT, Silver $ 469.95
17" 171S 0.269mm TFT Beigh $ 699.95
17" 171P 0.297mm TFT, Porsche Design $ 969.95

1800+ 1.53GHz $ 828
ATX Motherboard, 2-USB,
256MB PC-133MHz Memory
20GB 7200rpm Hard Drive
Samsung 1.44MB Floppy Drive
8MB Max. AGP 3D/2D Video Card
CD-RW 48xW/16xRW/48xR Drive
Integrated Sound Card, 10/100 Network Card
Enhanced ATX Tower Case, Amplified Speakers
Logitech Enhanced PS/2 Keyboard & Scroll Wheel Mouse
MS Windows 98 CD/Manual, Norton System Works
17" SVGA Monitor, 1280x1024@65Hz, 3 Years Warranty

MSI MS-6390 ATX Motherboard,
256MB PC-2100MHz DDR SDRAM Memory
40GB 7200rpm 2MB ATA100 Hard Drive
Samsung 1.44MB Floppy Drive
32MB Max Shared 3D/2D AGP Video Card
48xW/16xRW/48xR Drive, 25disk, 3 CD-RW
Integrated Sound Card, LAN 10/100 NIC
Enhanced ATX Tower Case, Speakers
Logitech PS/2 Keyboard & Scroll Wheel Mouse
1 Year Parts & 5 Years Labour Replacement Warranty
MS Windows XP Software, Norton Anti-Virus 2003
17" 0.23mm SVGA Monitor, 3 Years Warranty

2000+ 1.67G $ 968

2100+ 1.67 GHz $ 1398
KT400 ATX Motherboard, 2-USB
256MB DDR400 SDRAM Memory
40GB 7200rpm Hard Drive
Samsung 1.44MB Floppy Drive
64MB G4 Mx440 AGP 8X Graphics Video Card,
CD-RW 48xW/16xRW/48xR
1 Paks of 25disks, 1 CD-RW ~12X, 3 CD-RW ~4X
Integrated 3D WaveTable Sound Card
10/100 BaseT Network Card
Enhanced ATX Tower Case, 300W P.S., 2x Side Fans
Harmon Kardon Amplified Stereo Speakers
Logitech Windows Keys PS/2 Keyboard
Logitech Scroll Wheel Mouse
1 Year Parts & 5 Years Labour Replacement Warranty
MS Windows XP & MS Works Suite 2003 software
Norton Antivirus 2003, 6-Outlet Surge Power Bar
17" Samsung 753DF 0.20mm DynaFlat Monitor, 1280x1024@60Hz,3 Years Factory Warranty Only,

1.8 GHz $ 1298
2.0 GHz $ 1338
I845G Motherboard, 2-USB 2.0, @533
256MB PC-2100MHz DDR266 Memory
60GB 7200rpm 2MB Hard Drive
Samsung 1.44MB Floppy Drive
Intel Extreme AGP Graphics Video Card
4G CD-RW 48xW/24xRW/48xR, 2MB Buffer
1 Paks of 25disks, 1 CD-RW 4x~12x, 3 CD-RW ~4x
Integrated 3D WaveTable Sound Card
10/100 BaseT Network Card
Enhanced ATX Tower Case, 300W P.S., 2x Side Fans
Harmon Kardon Amplified Stereo Speakers
HP USB Multimedia Windows Keys PS/2 Keyboard
HP USB Scroll Wheel Mouse
1 Year Parts & 5 Years Labour Replacement Warranty
MS Windows XP Norton Anti-Virus 2003,
MS Works Suite 2003, 6-Outlet Surge Power Bar
17" Samsung 763DF 0.20mm MagicBright DynaFlat Monitor, 1280x1024@60Hz, 3 Years Factory Warranty

2000+ $ 848
2100+ $ 888
MSI KT3-Ultra2 ATX Motherboard,
256MB PC-2100MHz DDR SDRAM Memory
80GB 7200rpm Ultra ATA100 Hard Drive
Samsung 1.44MB Floppy Drive
64MB GeForce4 Mx420 3D/2D Video Card
CD-RW 48xW/16xRW/48xR Drive,
Integrated 3D WaveTable Sound Card
Strong Mid Tower Case, Front 2-USB 2.0 ports
600W Amplified Stereo Speakers w/Sub
Samsung Multimedia KB & Optical Mouse
1 Year Parts & 5 Years Labour Replacement Warranty

2200+ $ 1598
2400+ $ 1658
MSI 6390L ATX Motherboard, 2-USB
512MB PC-2100MHz DDR266 Memory
100GB 7200rpm Ultra ATA100 Hard Drive
Samsung 1.44MB Floppy Drive
32MB Max Shared 2D/3D Video Card
LG 48xW/24xRW/48xR, 2MB Buffer
50disks, 2x CD-RW 4x~12x, 3x CD-RW ~4x
Integrated 3D WaveTable Sound Card
10/100 BaseT Network Card
ATX Tower Case, 300W P.S., 2x Side Fans
600W Amplified Speakers w/Subwoofer
Samsung Multimedia Windows Keyboard
Samsung Optical PS/2 Scroll Wheel Mouse
1 Year Parts & 5 Years Labour Replacement Warranty
MS Windows XP & MS Works Suite 2003 software
Norton Anti-Virus 2003, 6-Outlet Surge Power Bar
19" Samsung 955DF 0.20mm DynaFlat, 1600x1200@66Hz, 1280x1024@85Hz, 3 Years Samsung Factory Warranty Only,

1.8 GHz $ 498
S478 ATX Motherboard, 2-USB, 1-AGP 4X, @533,
256MB PC-133MHz SDRAM Memory
20GB 7200rpm UDMA Hard Drive
Samsung 1.44MB Floppy Drive
64MB Max Shared 256bit Video Card
52x Max-Speed CD-ROM Drive
Integrated 3D WaveTable Sound Card.
10/100Mb/s LAN
Enhanced ATX Tower Case with 300W P. S.
Harmon Kardon Amplified Stereo Speakers
Logitech Keyboard & Scroll Wheel Mouse
1 Year Parts & 5 Years Labour Replacement Warranty

1.7 GHz $ 998
System Pick-up:
2-3 Days, Not 4Weeks
ATX Motherboard, 2-USB, 1-Parallel,
256MB PC-133MHz SDRAM Memory
80GB 7200rpm 2MB UDMA Hard Drive
Samsung 1.44MB Floppy Drive
32MB Max Shared AGP 2D/3D Video Card
CD-RW 48xW/16xRW/48xR Drive
1 Pak of 10disks, 1 CD-RW ~12X, 3 CD-RW~4x
Integrated 3D WaveTable Sound Card
10/100Mb/s LAN
ATX Tower Case, 300W P.S., 2x Side Fans
Harmon Kardon Amplified Stereo Speakers
Logitech Keyboard &Scroll Wheel Mouse
1 Year Parts & 5 Years Labour Replacement Warranty
MS Windows XP , Free Rogers Internet
17" KDS 0.23mm Monitor, 1280@60Hz,
3 Years KDS Factory Warranty Only(Not 1 Year Warranty)

2.40 GHz $ 1798
2.53 GHz $ 1888
Intel i845G chipset Motherboard, 4-USB 2.0
256MB DDR PC-2100MHz SDRAM Memory
60GB 7200rpm ATA100 2MB Hard Drive
Samsung 1.44MB Floppy Drive
Intel Extreme Graphics 350MHz 24-bit RAMDAC
DVD-ROM 16x Drive
MSI CD-RW 40xRW/12xR/40xR EIDE Drive
2 Paks of 50Disks CakeBoxes, 3 CD-RW ~10x
Integrated 3D WaveTable Sound Card
10/100 BaseT Network Card
Strong ATX Tower Case, front 2-USB 2.0
Logitec Z-340Speakers with Subwoofer
Samsung Multimedia Internet Keyboard
Samsung Optical Scroll Wheel Mouse
1 Year Parts & 5 Years Labour Replacement Warranty
MS Windows XP & MS Works Suite 6CDs software
Norton Anti-Virus 2002, 6-Outlet Surge Power Bar
15" LCD-TFT 0.297mm Monitor,
1024x768@Max, 3 Years Full Factor Warranty

Ultimate Game System
2400+ 2.00 GHz $ 3768
2600+ 2.20 GHz $ 3538
MSI MS-6590 KT4 Ultra-F8SR MB, Serial ATA RAID, Gigabit LAN, Firewire 1394, 4-USB 2.0, AC3-5.1
512MB PC-3200 DDR400 SDRAM Memory
200GB 7200rpm 8MB ATA100 Hard Drive
Samsung 1.44MB Floppy Drive
MSI 128MB G4 Ti4200-VTD8X Video Card
MSI DVD-ROM Drive 16x, Free DVD Movies
CD-RW 48xW/24xRW/48xR fastest Writer
2 Paks of 100disks Spindles, 3 CD-RW 4~12x
10/100 BaseT Network Card
Aopen Strong Tower Case, Enermax 450W Dual-Fan
Labtec Z-680 480W Spk. w/8" Subwoofer
Samsung Multimedia/Internet Keyboard
Samsung Optical PS/2 Scroll Wheel Mouse
1 Year Parts & 5 Years Labour Replacement Warranty
MS Windows XP & MS Works Suite 6CDs software
Norton Anti-Virus 2002, 6-Outlet Surge Power Bar
17" Samsung 171S 0.264mm LCD TFT, 1280x1024@60Hz, Contrast: 350:1
3 Years Samsung Factory Warranty Only,

COMPUTERS & PERIPHERALS SUPER STORE

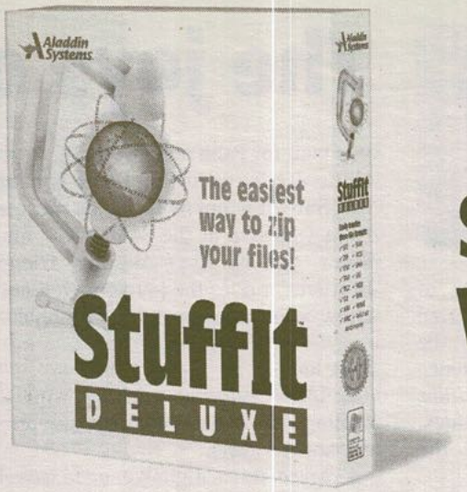
2899 Steeles Ave. W., #20, Toronto, Ontario, M3J 3A1
Tel.: (416) 667-1668 Fax: (416) 667-7001
http://www.cnpcanada.com/ Monday - Saturday 10 am - 6 pm
Email: cnpny@cnpcanada.com or cnpny@idirect.com

STAPLES DEPOT Steeles Ave. W. 2899
Hwy. 7 Hwy. 400 York University Keele Dufferin Yonge Finch Ave. W. Hwy. 401

All Prices are already 3% CASH discounted and are subject to change without notice.
No refund. Exchange on defective OEM Products only. 15% Re-Stocking Fee. Not responsible for any typo.

22670814

REVIEWS



Stuffing Windows

By DAVE CHAPPELLE

Transferring large files, especially huge audio and video files, is sometimes difficult. And if the transfer is between Mac and Windows systems, beware. While Mac users have been using *StuffIt* for years, Windows folks have been compressing with *WinZip*. *StuffIt Deluxe* for Windows has been around for a while, and the new version features new components and works for other operating systems too.

California-based Aladdin Systems makes this file compression and encryption application. *StuffIt* is available as a download over the Web or as a boxed CD.

The instruction manual is pretty thin, concerned only with installing the application. To find out how to use the program you could stumble around a bit on your own, but we found the help file to be better than many. Even if you've used *WinZip* before, you'll appreciate the tutorials. If you're unfamiliar with terms like archive and compress, definitions are also in the help section.

When you open *StuffIt Deluxe*, it automatically wants to open an Internet connection. Like many programs we're familiar with, explanatory tips also open in a separate window. More tips can be viewed or accessed at any time from the help menu.

StuffIt designers have made the interface with three panes, similar to that of Windows Explorer. You can choose to archive files, archive and e-mail, or archive and encrypt, and choose what format to save your file in.

If you prefer to navigate in Windows Explorer, the drag-and-drop functions will also work there. Perform commands simply by right-clicking on a file.

If you choose to load it, Office Ready StuffIt works directly with *Office* documents. A toolbar is placed in your office application, allowing you to compress, expand and e-mail compressed office documents.

Sure, you can FTP (File Transfer Protocol) large files, provided the recipient is set up with an FTP server. But e-mailing large attachments isn't a good idea, because most e-mail systems have attachment size limits, usually set at 2 to 5 MB. Cramming huge files into a manageable size for e-mailing is a practical use of compression technology.

A good way to send a compressed file is as a Self-Extracting Archive (SEA), so the recipient can open it without having to install any software. Also, you can specify an e-mail be sent to you confirming extraction.

You can use *StuffIt* to automate your backups, and save yourself space on backup media. Many people use CD-R drives to back up data. It doesn't take long to fill a 650 or 700 MB CD. No, blank CDs aren't expensive, but if you back up daily, over time that cost adds up. We compressed a relatively small 30.4 MB folder into 15.5 MB. Your results will depend on the type of files you're archiving. However, on a larger scale, results similar to ours could decrease your storage costs significantly over a long time period. Also *StuffIt* offers the option of automatically sending your backups over a network to a system used for off-site storage, either by FTP or e-mail.

So why should a Windows users buy *StuffIt* if *WinZip* is free? *WinZip* only works with Windows, while *StuffIt* works with other operating systems, like Mac, Linux and Unix. We didn't try them all, but documentation indicates *StuffIt* reads more file types than *WinZip*. And *WinZip* doesn't encrypt files. ◆

more INFO

StuffIt Deluxe 7.5 for Windows
US$39.99
Aladdin Systems
www.stuffit.com

Requirements:
Pentium or better
Windows 98/ME/NT/2000/XP
32 MB RAM

Planes, trains and AirPorts

A thought struck me as I was setting up an AirPort network with my laptop the other day – did Apple call it "AirPort" because it is a networking "port" that magically flies data through the "air" to and from your computer? Or did they call it that because of the striking similarities that can be seen when this white mushroom-cap-shaped device is compared to an actual airport? Let's see if we can figure this mystery out.

When you purchase an Apple AirPort you really have no choices to make. It comes in one colour, one shape and one configuration. In this case, one size fits all. You don't have to worry about compatibility either. Just make sure your Mac has an AirPort wireless card installed and it will recognize any AirPort within range.

The same is true when you go to an airport to catch a flight. You don't choose your terminal nor the type of airplane you are going to fly on. They're all pretty much the same – couple of jet engines, wings, tail – and every time a jet is within range of another airport, it's recognized by that control tower.

Setting up an Apple AirPort can be a breeze, but like all walks in the park, there can occasionally be some rough terrain. Apple has gone to great lengths to create a true plug-and-play world. The AirPort I got was a demo unit that had been set up previously in a working environment. First, it was password protected. Now I suppose the upside to this is that password protection does work. If you have friends or family that are constantly using your AirPort connection for free Internet access – block 'em! And don't underestimate the importance of password protection with a wireless network. A friend of mine demonstrated how he could sit in his living room and log onto the wireless network of his next-door neighbour.

A soft reset clears the password and is in the troubleshooting section of the manual. After doing that, I found that access to this particular unit was restricted to the computers that were listed in its memory. A hard reset was the only way to clear everything and start from scratch. Information about the hard reset was found at Apple's support site on the Web. When that was done, I had only to follow a few simple setup steps and suddenly my wireless network connection was alive and well.

When going through an airport most of us have a hassle free experience. Once in a while you get one loud mouth at the security station and suddenly everybody is a suspect. Sure, they smile as they go through your bags with a magnifying glass and let the drug dogs lick the chocolate you bought for your wife, but it doesn't make it better.

Apple claims that the AirPort is good for distances up to 50 metres. I suppose that could be true if you live in a house with no walls and no electrical interference. I don't know about you, but that's not my house. Cement and plaster walls are the biggest problem for these types of wireless devices.

As soon as you get a cement wall and 20 feet between the computer and the AirPort base, you lose the signal. That's why placing the base station close to where you will be working is essential. I had visions of working wirelessly everywhere in my house – in the kitchen, bedroom, outside and on the stairs.

Realistically, I still tend to stick near my office area. But now I can sit in a more comfortable chair with my feet up. Plus, once you have a connection, it stays. I haven't lost a download yet. And it's just as fast as a wired connection.

How far can an airplane go? A lot further than the Apple AirPort, but you do have to get out of your chair to get to one. And airplanes are pretty reliable too.

It seems to me that AirPort and airports actually have a lot in common. I doubt very much that Apple had airports in mind when designing their wireless wonder, but hey, a good idea is a good idea – fly with it. ◆

more INFO

AirPort Base Station is IEEE 802.11b Wi-Fi certified (tech talk meaning it works with a bunch of regular PCs too and non-Apple cards)
To learn more about the AirPort check out www.apple.com/airport

Requirements:
An Apple computer running Mac OS 9.0.4 or later and an AirPort card.
A PC can access the AirPort network after being set up by an Apple computer. The PC must have an IEEE 802.11b certified wireless card.

Union Computer & Electronic

2107 Yonge Street, Toronto (Between Eglinton and Davisville) 2nd traffic light south of Eglington. East side on Yonge
Parking at rear OPEN SUNDAY Mon-Fri 10AM-7PM Sat 10AM-6PM Tel: 416-488-9293 Fax: 416-488-5085
255 Morningside Ave. Unit 205 Scarborough Morningside Mall (Morningside & Kingston)
OPEN SUNDAY Mon-Fri 10AM-9PM Sat 10AM-6PM Tel: 416-283-3042 Fax: 416-283-5381

Hard Drives		Video Cards (Please call for latest price)	
Maxtor 20 / 40 / 60 / 120/ 160	$95/109/130/225/305	Geforce 4 T4600 / Ti4800 128M	$385 / 410
Maxtor 30/40/60/80/120(7200rpm)	$95/115/125/150/215	Geforce 4 Ti - 4200 / 4400 128M	$229 / 305
IBM 40 / 60 / 80G (7200rpm)	$125 / 139 / 150	MSI Geforce 3Ti200 64/128M DDR TV	$119 / 170
IBM SCSI U2W 36G(10000RPM)	$309	MSI Geforce 4 MX440 / MX420 64M TV	$110 / 95
Quantum SCSI(10K) 18 / 36 / 73	$179 / 320 / 750	SIS 8M PCI / ATI 16M / 64M PCI	$35 / 69 / 109
WD 80 / 120 / 160 / 200 (8M)	$170 / 265 / 450 / 550	Geforce 2 MX 64M TV out	$65
WD 40/60/80/120G(7200RPM)	$125/135/145/239	ASUS V8170 64M G4MX420/MX440	$99 / 125
Portable Drive USB 64/128/256M	$65 / 95 / 160	ASUS V8420 128 M G4 4200	$349
Notebook HardDrive to PC adaptor/Ext Case	$25/59	ASUS V9180MX440 64M 8X TD/VIVO	$140 / 185
NoteBook Hard Drive	20/30/40/60G$145/175/199/309	ASUS V9280C4 Ti4200 128M	$249
Floppy Drives & Tape Backups		ASUS 8460 Ti4600 128M / UTLRA	$435 / 475
External Floppy USB	$69	ATI TV WONDER / USB	$95 / 105
Panasonic or Fujitsu 1.44/1.2 floppy	$18 / 45	ATI Radeon 9000 / 9000 PRO 128M	$ 129 / 225
Iomega 100 / 250 / 750 MB Zip	$69 / 119 / 205	ATI Radeon 7000 64M	$ 60
Seagate 20/ 40 G TAPE STORE IDE INT	$369/ 559	ATI Radeon 9500 / 9700 PRO 128M	$289 / 489
Main Boards		ATI Radeon 7500 64M	$69
ASUS A7S333 / A7V8X	$ 95 / 169	ATI Radeon 7500 All-IN-Wonder 64DDR	$190
ASUS A7V333RAID/A7V333	$189 / 155	ATI RADEON 8500 All-In-Wonder 64/128M	$265/395
ASUS A7N266E/A7N266/A7M266D	$249 / 319 / 299	ATI XPERT 2000 32M	$ 45
ASUS P-4 P4T533 / P4B533E	$245 / 225	**Monitors**	
ASUS P4B266C / P4S8X / P4PE	$140 / 195 / 189	Viewsonic LCD 15" / 17" / 18"	$489 / 749 / 945
ASUS P4S533/P4B533 / P4SE	$150/179/105	SAMSUNG / LCD 15" / 17" / 19"	$429 / 690 / 1175
Abit BD7II / KR7A / BD7IRAID	$ 135 / 105 / 165	NEC LCD 15" / 17" / 18"	$459 / 739 / 930
Abit KX7333/KX733R/AT7 MAX2	$129/ 125 / 259	GOLDSTAR LCD 15" / 17" / 18"	$479 / 719 / 1040
MSI P4-6566E/6547/6580/6398AR	U$139/99/145/165	SAMSUNG17" 750S / 753DF / 755DF	$175/199/260
MSI KT3 Ultra2 / KT4 Ultra	$199 / 145	Samsung 763MB/765MB/757MB	$259 / 289 / 339
ECS K7VMM / K7S5A / P4S5A	$ 99 / 80 / 85	SAMSUNG 19" 900NF/955SL/955DF	$470/389/325
Gigabyte 7VAXP / 7VAX	$155 / 125	SAMSUNG 19" 950B / 957MB	$275 / 399
CPUs (Please call for latest prices)		NEC 19" FE990 / AS90 / AS95F	$380 / 299 / 339
Intel P4 -(533) 2.66 / 2.83 / 3.06	$450 / 609 /1010	Sony 17" E200 / G200S / G220R	$449 / 539 / 489
Intel P4 -(533) 2.26 / 2.4 / 2.53	$ 315 / 315 / 379	Sony 19" G410R / G420S	$575 / 610
Intel P4 2.0 / 2.2 / 2.4/2.5G	$269 / 320 / 320 / 390	Viewsonic 17"E70 / E70F / P75F	$220 / 239 / 315
Intel P4 1.7 / 1.8G	$ 209 / 235	Viewsonic19" G90F / P95F+ / E90F	$379 / 409/ 355
Intel P3-1.0 / 1.13 / 1.2 / 1.4G	$185 / 189 / 189 / 335	**Cases**	
Intel Celeron 900/ 1.7/1.2/1.3G	$ 95/ 75 / 85/ 95	SEE THRU CASE W/ WINDOW / LED	$65
Intel Celeron P4 1.8/2.0/2.1/2.2	$99/125/145/165/185	ATX FULL / MID-TOWER	$89 / 35
DURON 1.1 / 1.2 /1.3G	$ 59 / 73 / 75	External Case for CD-RW,HARD DRIVE	$95
AMD-XP 1.7 / 1.8 / 2.0G	$99 / 115 / 135	Aluminum case / Lian-Li	$95 / 199
AMD-XP 2.1 / 2.2 / 2.4/ 2.6G	$155 / 245 / 295 / 475	Enermax power supply (whisper quiet)	$55
Ram Memory(Please call for latest prices)		CSA powersupplies 300W / 400W	$ 25 / 55
Smart Media 32 / 64/ 128M	$35 / 55 / 90	CPU fan / SLOT FAN / CASE FAN	$5 / 10 / 10
Compact Flash Card 64 / 128 / 256	$49 / 79 / 135	THERMALTAKE ENGINE COOLING FAN	$25
RAMBUS PC800 128 / 256 / 512	$65 / 115 / 329	**Printers**	
RAMBUS PC1066 128 / 256	$ 85 / 155	Brother 1240 600dpi / 1030	$359 / 319
DDR PC266 128 / 256 / 512 / 1G	$55 / 85 / 153 / 539	Samsung 1210 / 1440	$ 270 / 289
DDR PC333 256 / 512	$95 / 175	Canon S330 / S520 / S750	$ 115 / 125 / 145
DDR PC400 256 / 512	$110 /-205	Epson C42 / C62 / C80	$65 / 135 / 169
EDO 16M / 32M / 64M 72pin	$25 / 38 / 48	HP Deskjet 3420/3820/5550	$125 / 155 / 199
SDRAM PC-100 64M / 128M / 256M	$25 / 40 / 75	HP LaserJ1000/1200/5000/2100	$355/539/2190/955
SDRAM PC-133 64/ 128/ 256/ 512	$25 / 35 / 55/ 105	Lexmark Z25/ Z-45/Z-55/Z-65	$55 / 105 / 160 / 199
SDRAM PC66 64 / 128M 168pin	$30 / 45	**Keyboards / Mouse**	
NOTEBOOK RAM 128 / 256	$ 65 / 105	Mouse / Optical Mouse	$10 / 18
Motherboard + CPU Bundle		104 Microsoft / Logitec / INTERNET	$20
AMD XP 1800 + MAINBOARD	$199	Logitec OPTICAL Wireless KB/Mouse	$129
AMD 1.3 DURON CPU + MAINBOARD	$149	**Scanner**	
AMD XP2000 + MAINBOARD	$225	Acer Scan 4300U / 5000U	$79 / 109
INTEL P4-2.0G + ASUS MAINBOARD	$369	HP 2300C / 5300C / 5500C	$99 / 279 / 415
P4-1.7 CEL + ECS BOARD + VIDEO + SOUND + NETWORK + MID TOWER CASE	$219	UMAX 2100USB / Parallel / 2000	$129 / 135 / 170
		Microtek Flatbed color V6UPL/E3/X6	$205/195/219

REFILL YOUR INK CARTRIDGE & RECYCLE LASER TONER

NOTE BOOK MEMORY UPGRADE	
128 / 256 M SODIMM	$65 / 105
NoteBook HardDrive to PC Adaptor	$25
I/O Cards & Controllers	
Hi-speed printer card / USB PORTS	$25
RAID Controller Card ATA 133/100	$129 / 75
Adaptec 2906 / 2916DN	$99 / 269
SOUND CARD / CD ROM / DVD	
SoundBlaster LIVE 5.1	$ 45
SoundBlaster PLATINUM 2 Audigy / EX	$269 / 339
SoundBlaster 128PCI / 32 PCI	$29 / 18
SB MP3+Audigy / X-GAMER 5.1	$130 / 130
Logitech / INTEL WEB CAM	$35 / 49
Sony / Lite on/ NEC / GOLDSTAR DVD 16X	$59
Pioneer DVD 16X / 10XSCSI	$ 65 / 175
External 52X CD-ROM Sony	$120
Creative 52X IDE CD-ROM	$35
Plextor 40X SCSI CD-ROM	$169
KVM / SWITCH Keyboard / Video / Mouse	$29/59
CD WRITER / BLANK-CD	
Blank-CD 50 pcs / 100PCS	$18 / 29
PANASONIC D311 IV DVD-RAM	$369
Pioneer DVD-Rewriter104/A05/ DISC	$380/429/4.99
Toshiba DVD-R / RW SDR5002	$350
GOLDSTAR DVD + CDRW (Combo)	$109
EXT USB 48X16X48 SONY	$180
SONY 48x16x48 / 52x24x52	$ 75 / 85
AOPEN 48X16X48	$ 80
GOLDSTAR 48X24X48 / 52x24x52	$ 75 / 85
PANASONIC 40X48X12	$ 85
Lite-On 48X24X48 / 52X24X52	$ 85 / 105
Yamaha 44X24X44	$145
MicroStar 48X16X48	$ 75
Plextor 48X24X48	$ 155
Plextor 48x24x48 USB	$ 270
Faxmodems & Network / SPEAKER	
Firewire PCI CARD / PCMCIA Card	$39 / 75
USB 2.0 PCI CARD	$75
ACER 56K PCI Int. with voice	$25
Motorola 56K V.90 int voice	$20
USR 56.K Sportster int V.90	$35
3 COM NETWORK CARD PCI 10/100	$50
Router 4 ports	$60
Dlink Router 4 ports	$79
Linksys Router DSL/CABLE 4 / 8 ports	$95 / 135
WIRELESS USB LAN Adapter/PCI Adapter	$70/70
Accnss point 11MPS Wireless Lan	$125
Linksys Etherfast wireless 4 ports Router	$195
Linksys Wireless Network Card / PCMCIA	$109
Dlink Wireless 11 MPS LAN Access point	$145
Dlink Wireless PCMCIA / PCI CARD	$90 / 100
DLINK Wireless Router	$169
DLINK 5/8/16/24 ports HUB	$ 55 / 75 / 149 / 215
5 / 8 ports 10/100 HUB	$35 / 55
3COM PCMCIA 10/100 Ethernet Card	$149
PCMCIA 10/100 Ethernet Card / Modem	$65/65

* All prices are cash discounted and subject to change without notice*

WE DO UPGRADE * REPAIR * COMPUTER * PRINTER * MONITOR

22581114

World's CHEAPEST Computer Warehouse

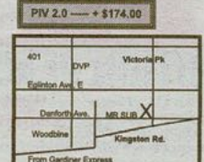
AMAZING
P4 1.4 with 17" & CDRW
6 Months NO INTEREST NO PAYMENTS
only ~~$797.~~
NOW $636.
While Supplies Last

Pentium IV ATX Mid Tower Case 300W
Premium Pentium IV Motherboard
INTEL Pentium IV 1.4 GHZ CPU
128 MB SDRAM
40GB Hard Drive
1.44 Floppy
16MB AGP Video
CDRW Drive
16 Bit Sound
17" SVGA Monitor
WINDOWS Keyboard
MS Compatible Mouse

Not exactly as shown

P/V 1.5 —— + $38.00
P/V 1.7 —— + $78.00
P/V 2.0 —— + $174.00

Warranty: 1 Yr Parts & 2 Yrs Labour



3040 Danforth Ave.
Unit 5
Toronto,Ontario
M4C 1N2
PH 416 686-9788
FAX 416 686-9982

Open
Mon-Fri 9:am-7:pm
Sat 11:am-6:pm
Sun- CLOSED

www.worldscheapestcomputer.com
Email: sales@worldscheapestcomputer.com

COMPAQ
Hewlett-Packard

ASUS XPL-1.8
Designer ATX P4 Mid Tower Case 320 W
ASUS Pentium 4 Mainboard
INTEL Pentium 4 1.8 GHZ CPU
256 DDR RAM
1.44 Floppy
40.0 GB UDMA Hard Drive ATA-100
64 MB AGP VIDEO
DVD ROM DRIVE
CDRW DRIVE
32 Bit 3D Surround Sound
17" Monitor
10/100 Ethernet Card
Windows Enhanced Keyboard
MS compatible Scroll mouse
3pc Subwoofer Speaker System
$896.00

ASUS XPL-2.4
Premium Designer ATX Tower Case 300W
ASUS Pentium 4 Motherboard
INTEL Pentium 4 – 2.4 GHZ MHZ CPU
512MB DDR RAM
PANASONIC 1.44 FLOPPY
80GB Hard Drive 7200 RPM
16X DVD ROM Drive
40X12X40 CDRW (Separate Drives)
ASUS GeForce 4 MX 64 MB AGP TV-Out
CREATIVE LABS Soundblaster Audigy
D-LINK 10/100 Ethernet Card
17" SAMSUNG Dyna Flat Monitor .20 dpi
Multimedia Internet Keyboard
Internet Scroll Mouse
3D Surround Subwoofer System
Windows XP Home & Llc
1687.00

Get Your Hands-on Training for A+ Certification Info Call 416 686-9811

22584914

3 DAYS ONLY! A PC and Mac show
computerfest.ca
Computer Super Sale
Canada's LARGEST Computer Show and Sale
$12 million of Computer Products at BLOW-OUT PRICES!
Pentium Notebooks starting at $95
P-4 System 1.8a GHz Base System 256 MB RAM, Floppy Built-in LAN, Sound $489
Over 100 EXHIBITORS New, Used, Closeouts & Overstocks
UP TO 80% OFF
• Free Expert Advice
• PC Games Arcade
• Free Seminars
USB 2.0 Hard drives starting at $59.95
Flat-panel LCD 15-inch monitor $399 17-inch monitor $599
SOFTWARE GIVEAWAY
First 400 visitors on Saturday & Sunday receive a free PC software package
Floppy drives, used $2.95
CD-RW Lite On 48x24x40 $95
Toshiba DVD-R/RW Drive $457
DOOR PRIZE! from ULTINET: AMD XP 2100 computer w/CD burner, 17" monitor
Computer Fest sponsored by:
Toronto computes! Technology lifestyle
Parking $3* At Ontario Place *$5 minus $2 rebate on Computerfest admission
Myst full version in jewel case $2.99
Laptop Memory 256 MB DDR-RAM $89
Software Books from $1
pizza pizza
COMPUTER FEST
FEBRUARY 7–9
NATIONAL TRADE CENTRE, EXHIBITION PLACE
Friday 10am–9pm; Saturday & Sunday 10am–6pm
CHILDREN 10 & UNDER ADMITTED FOR FREE
Take 511 streetcar from the Bathurst subway or the 509 Harbourfront car from Union Station.
$1 OFF Regular Single or Family Admission with this coupon
TC Feb 03
We will send you a $3 OFF coupon once you register your email at www.computerfest.ca
2253314

Locking the virtual front door

By ALAN ZISMAN

Have you noticed? Lately, the Internet doesn't seem to be as much fun as it used to be. What, a few years ago, was an exciting way to communicate and get news and information now has become increasingly painful to use.

With an increased number of viruses, hack attacks, pop-up Web pages and more, online has changed from the sort of community where people left their front doors unlocked to a place where everyone needs to invest in multiple deadbolts and bars, and peek out cautiously when anyone knocks.

Symantec's *Norton Internet Security 2003*, now in its third edition, promises to reduce the risks and inconveniences of being online.

Like previous versions, the 2003 edition ($109) bundles the latest versions of the company's *Norton Antivirus* and *Norton Personal Firewall* (each available separately for $69). Last year, *NAV* added the option to scan outgoing e-mail to catch any viruses before they infect others. New this year is the option to watch several instant messaging programs – though not the popular *ICQ* program. It's easier than ever to update the virus definitions automatically, no user intervention is needed. (A one-year subscription to Symantec's Live Update is included with the purchase of *NAV* or *NIS*; afterwards, you will need to renew to continue the automated service. Alternately, you can manually download the latest virus definition files for free.)

Like other software firewalls, *Norton Personal Firewall* hides your computer from hackers randomly probing the Internet for vulnerable systems. As well, it keeps track of programs on your computer that are trying to connect outside. When it is first installed, it searches your system and presents you with a list of Internet-capable programs. It makes recommendations that it thinks are "friendly." Resist temptation to simply allow everything listed free and easy Net access; instead, grant access to your Web browser and e-mail software. When other programs try to go online, the firewall will inform you, asking for permission.

A new privacy control feature blocks attempts to send credit card, bank account and other sensitive information from your computer without your knowledge. Also new and very welcome is the option to screen out standard Web ads and annoying pop-up and pop-under browser windows. This feature works better than some others that I have tried, which often keep the main page from loading.

Like *NAV*, *Personal Firewall* uses Symantec's Live Update to maintain an up-to-date list of online hazards. You also get a one-year subscription when you install the software.

Norton Internet Security offers a single interface for access to antivirus and firewall features. As well, it includes a number of extra features. You may choose to use it to label e-mail messages with the phrase "Spam Alert." By my informal count, it caught about 80 per cent of the unwanted e-mail arriving on my system. It's up to you to decide where to go from there; the manual discusses how to set up rules in *Outlook Express* or filters in *Eudora* to automatically send labeled messages to the Trash, if desired.

Parents may choose to allow different levels of Internet activity for different users of the computer; editable profiles are included for children and teens, giving parents control over what their children are able to do online. (Once again, lists of blocked sites are updated regularly via the Live Update subscription). A $149 Pro version of the product is designed to allow employers to block where employees can surf during work.

I would have liked to see the program monitor *ICQ* as well as other similar programs, and some of the options are difficult to discover. But *Norton Internet Security 2003* goes a long way to making the Internet a safer and more fun place to spend time. ◆

more INFO

Norton Internet Security 2003
$109
Symantec
www.symantec.ca

Requirements:
Windows XP/ME/2000/98, 150 MHz processor (300 MHz for XP), 64 MB RAM (128 MB required for XP), 90 MB hard disk space, Internet Explorer 5.01 or higher, CD-ROM

Multi-region DVD players open up a world of movies

By TOM VENETIS

Being a movie buff in the age of DVDs can be frustrating. Such films as Pasolini's *Salo*, Wender's *Wings of Desire*, Lynch's *Eraserhead* and Fukasaku's *Battle Royale* are commercially available on DVD in Europe and Asia only, and there is little indication when these pictures will become available in North America. What is even more frustrating is that if one were to purchase the European DVDs of these pictures, they would not be playable on North American DVD players because of the region encoding.

Region encoding is the system created by movie studios to protect the worldwide copyright and distribution mechanisms of their movies on DVD. Since movies are released on different schedules around the world, the studios wanted to make sure that revenues were not lost by people buying DVDs from different regions and thereby diminishing the revenues generated by the local release of DVDs.

Because of the desire of the studios to protect revenues, different parts of the world now have different region codes, restricting the playability of DVDs (see sidebar for the different region codes). A DVD purchased in Europe has a Region 2 code, and only Region 2 capable DVD machines can play the discs. DVDs from North America, with their Region 1 encoding, are unplayable on Region 2 or other region-specific machines, just as non-Region 1 DVDs are unplayable on North American DVD players. So even if a film is released in North America first, consumers in Europe or Asia will have to wait for the studios to release region-specific versions of the movie.

So what is someone to do if they have a non-Region 1 DVD and want to watch it, or if they want to purchase a movie on DVD that is only available in Europe or Asia? The best way to get around the region encoding is to use a multi-region DVD player.

A player that doesn't discriminate

Multi-region players are designed to play all DVDs, regardless of the region encoding. The problem is that most of these machines are not generally available in consumer electronics stores. Instead, they are in stores that specialize exclusively in selling video and audio products, and there are a variety of stores around North America that specialize in selling nothing but multi-region DVD players and accessories (see More Info box for stores).

Shane Gorman, wholesale and affiliate manager with the Montreal, Que.-based Merconnet, says that sales have been strong for their NextBase 2 multi-region/multi-function DVD player ($284). The company has been selling the NextBase multi-region/multi-function player for about two years.

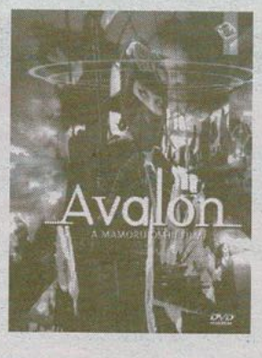
"Some of the sales are definitely to movie buffs that are looking to watch hard-to-find films from different parts of the world," Gorman says. "Others are frequent travellers overseas who often pick up a movie while travelling and want to see it when they get home."

Gorman says that multi-region DVD players are an outgrowth of the multi-region video player market that existed in the 1980s. In Europe, many households had video playback machines that could handle tapes recorded in different television standards – NTSC, PAL and SECAM. Europeans used these machines to watch movies that were only available in North America, or to watch tapes made by relatives living overseas. Many in North America wanted those machines, and when DVD players came along they began to actively demand similar multi-region machines for themselves.

"That is why you are starting to see here in North America a real boom for multi-region DVD players," says Gorman. "People now want to get their hands on a wider variety of releases and materials than are currently available. You saw this with movie collectors and those interested in such things as Japanese animation. Now it is becoming more of a mainstream thing."

Hollywood fights back

But not everyone is pleased with the growing popularity of multi-region DVD machines. While it is not illegal to sell such machines in North America, the major studios are not happy about the potential lost revenue. To try and dampen their growing popularity, the studios have been coming up with several ways to make watching movies on these players much more difficult. Recently, the Motion Picture Association of America (MPAA) developed the Regional Code Enhancing (RCE) system that is now being placed on many Region 1 DVDs. The RCE is made to prevent Region 1 DVDs from being played on multi-region DVD players, and there are talks underway to include this technology on DVDs released around the world. Still, many multi-region DVD players are now starting to be released with technology that gets around the RCE system.



Region Codes:

1	Canada, United States, US Territories
2	Japan, Europe, South Africa, Middle East (including Egypt)
3	Southeast Asia, East Asia
4	Australia, New Zealand, Pacific Islands, Central America, Mexico, South America, Caribbean
5	Russia, India, Pakistan, Africa (except Egypt), North Korea, Mongolia
6	China
7	Not currently used
8	Special international cases (planes, cruise lines, etc.)

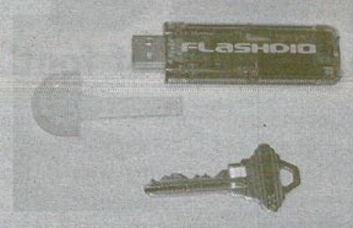
Some consumers may be concerned that since DVDs from around the world are encoded on different television standards they still may not be playable on North American televisions. Not to worry, as many of the players come with built-in mechanisms that convert the television information for North American televisions. If there are still problems, there are video converters that can convert the signal. Now, one can impress friends with those hard-to-find films and uncut gems that usually only those living outside North America can enjoy. ◆

FlashDio offers secure storage

By DAVE CHAPPELLE

There are plenty of small USB devices on the market that store encryption keys and passwords. However, the FlashDio allows the encryption of an entire drive and also stores encrypted files and folders.

Inserting the FlashDio into a system prompts a password window. Drivers must be installed on Windows 98 and Mac OS 8.6 computers. Enter a password twice and it's ready to use. Make sure you remember your password, because without it the FlashDio and whatever is stored on it, become useless.



Folders, subfolders and files can be encrypted by right-clicking on a folder or file and selecting the encryption option. To read an encrypted file, your password must be entered.

Sections of a hard drive or an entire drive can be encrypted. When the FlashDio is removed, the drive is safe until the device is re-inserted into the USB port.

Folders and files can also be saved to the FlashDio as if it were a removable disk, which is how it appears in the "My Computer" section.

While storage capacities from 16 MB up to 512 MB can be purchased, the physical size of each FlashDio remains constant at 1x2.4x8.3 cm and 15 g. A plastic cap with a pocket clip covers the USB connector. A small hole at the other end can be used to attach the FlashDio to the included necklace or a key chain for safekeeping.

A 120 cm (4 ft.) cable is included, meaning you only have to reach around to the back of your system once to connect to USB ports found on the rear panel.

This technology offers several possibilities. Important information can be stored offsite, away from disaster and prying eyes. Simply removing the unit from the USB port renders any encrypted data unreadable. If large amounts of data on the system must be encrypted, removing the FlashDio is an easy method of doing so, without the hassle and potential dangers of physically removing the system hard disk.

It occurred to me that the portability, encryption, and sensitive data safekeeping capabilities make FlashDio a natural accessory in the toolkit of the "spooky characters" inhabiting agencies such as CSIS, the RCMP, the CIA or the FBI. Representatives of the Canadian distributor (Paratech Trading in Burnaby, B.C.) would neither confirm nor deny my suspicions. ◆

more INFO

FlashDio
US$36-$900, depending on storage capacity
Diography Inc.
www.flashdio.net
In Canada: Paratech Trading, (604) 808-5622

Requirements:
Mac OS 9.0 or higher
WinME/XP/2000
Drivers included for Win98 and Mac OS 8.6

Developers bring the Grotto to life

By GEOFF MARTIN

It was bound to happen sooner or later. Many a young man has dreamed of living the life of *Playboy* magazine founder Hugh Hefner, and they'll soon be able to step into his virtual slippers, with the help of a Toronto video game developer.

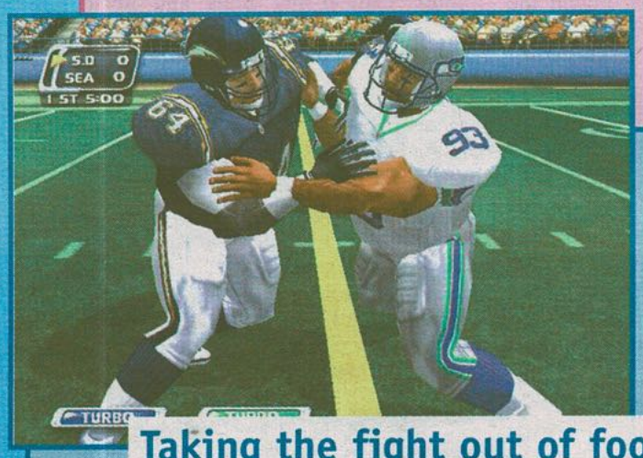
Toronto's own Groove Games (www.groovegames.com) has been given the nod to develop a multi-platform game following Hefner's day-to-day activities after a deal was recently worked out between Arush Entertainment (www.arushgames.com), an Arizona-based video game distributor best known for the *Duke Nukem* franchise of games, and Playboy Enterprises.

According to Arush, the "world-building" game that's set to hit store shelves sometime in 2004 will simulate the life of Hugh Hefner, complete with hanging out in the Playboy mansion with his half-dozen live-in girlfriends and an ever-changing cast of Playboy Bunnies, as well as hosting the mansion's infamous parties. The game won't simply be a simulation of Hef's life of leisure, however, as players will also have to manage the business side of the magazine that makes his lifestyle possible.

According to Arush, the game will likely carry a Mature rating and will more than likely feature a topless woman or three, but the focus will be on "sexy, not sex."

It's all part of a growing trend of games marketed towards adult game players, as evidenced by the success of Acclaim's *BMX XXX* – a game that somehow manages to combine riding BMX bicycles and visiting strip joints, to the consternation of parents and moral guardians everywhere.

Despite the storm of protests Groove Games' latest venture is likely to elicit, it's going to be an almost sure-fire home run, since *Playboy*'s 3.1 million subscribers spent a total of US$300 million on video games last year. Now that the average gamer is rapidly approaching his or her thirties, it seems they're looking for female characters slightly more racy than Ms. Pac Man, and like it or not, we can only expect to see more games of this type in the future.



Taking the fight out of football

As the video game industry sinks to new depths with increasingly realistic and sordid depictions of sex and violence, not everyone with a stake in the industry is blindly going along with it, most notably the National Football League.

As the 2003 football playoffs were in full swing, the league semi-quietly approached Midway Games (www.midway.com) and suggested that if the company wished to retain the future rights to the NFL licence, the violent content in its *NFL Blitz 2003* should be toned down significantly in its next revision, if not eliminated altogether.

Midway's version of NFL football is what it calls an "adrenaline-style" sports video game, where the focus is on action over realism. In *NFL Blitz*, pass interference in the form of tackling, piledriving or clotheslining opposing players is not an offence punishable by a penalty, as it would be in a realistic portrayal of NFL football – in fact, it's wholeheartedly encouraged as an essential element of the game. Fighting with other players after a whistle is blown is also encouraged, and players can even adjust their settings to allow more "fighting time" after each whistle, making the console game a cartoonish hybrid of football and professional wrestling.

Gene Goldberg, the NFL vice-president of consumer products, told the media recently that the over-the-top action to be found in *NFL Blitz* is "not what goes on when players are on the field ... Next year, we will dial this back a little more. We're going to err on the side of conservatism," he said.

What's good for the goose ...

John Poindexter is the brains of the Total Awareness Network, a project of the US government that is aiming to aggregate data on all its citizens from various sources, in order to identify "potential terrorists," but lately, he's the one who's being watched.

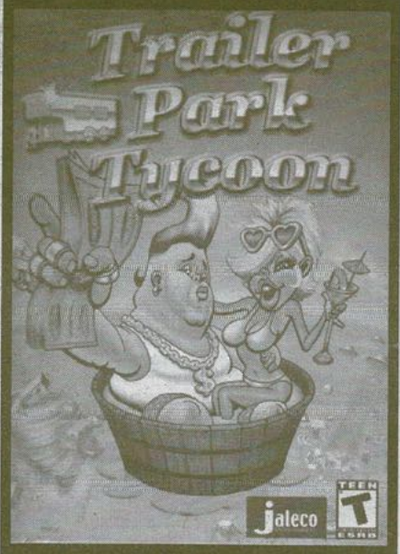
The latest brainchild of the Poindexter's Information Awareness Office in the Pentagon has privacy advocates justifiably worried to the point of near-panic, since it will combine data from credit cards, travel activities, school records, medical records and other sources of information. Not content to take this perceived assault on their privacy lying down, several activists have taken to turning the watchful eye of Big Brother on Poindexter himself.

The trouble for Poindexter started when a columnist for *SF Weekly*, a San Francisco-based magazine, published Poindexter's e-mail address and home phone number, which he said were in the public domain, and therefore free for anyone to distribute. The info quickly began popping up at hundreds of other Web sites, and Poindexter was forced to have the number changed. Privacy advocates continued their Web-based campaign and posted satellite photographs of Poindexter's house that are available for purchase from satellite imaging company GlobeXplorer (www.globexplorer.com), as well as maps detailing how to get there.

Some Web sites have taken the campaign a big step further and are urging people to simulate a future facial recognition system, which some say is the next logical step in the Total Information Awareness Network, by distributing Poindexter's photograph. Should they ever recognize Poindexter in their presence, everyone from serving staff in restaurants to toll booth collectors are being encouraged to post details of his activities on the Web or even to deny him services, telling him simply that he's been identified as a potential security risk.

John Gilmore, one of the co-founders of the Electronic Frontier Foundation (www.eff.org), an electronic privacy group, posted a message detailing his support for the campaign and said that he too had posted Poindexter's details because he felt "it would be good to have an early public demonstration of just how bad life could become for such targeted individuals." ◆

By WILLIAM A. WOOD



Pink flamingo heaven

Trailer Park Tycoon takes the now-familiar "tycoon" model and plops it down in the "colourful" world of – wait for it – trailer parks. Yeehaw!

Each game consists mainly of placing trailers of various types in preset locations in order to attract residents (who pay you rent) and then adding amenities (restaurants, laundry facilities and so on) to keep your residents fed and entertained. You also need to add a variety of "ornaments" (stacks of tires, propane tanks, shot-up car bodies, junk sculptures, barbeque pits and other trailer-culture treasures) to each trailer's yard.

Ornaments are the key to success (and in many ways, provide most of the fun). Each resident has preferences in one or both of two "styles" of trailer-park life: Trashy vs. flashy and cool vs. old school. These two style values are mutually exclusive; that is, trashy subtracts from flashy and vice versa.

Keeping residents happy (and paying) requires that you satisfy their predilections (represented by colour-coded number values). So if Billie Joe likes old school, you keep her happy by making sure that her trailer (which includes her home and the surrounding area) has a high enough old school value.

Some trailers are specialized and come with a high rating in one or both styles, but most are relatively low. Ornaments are used to modify the two style values. Generic trailers are also upgradeable (to single-wide and double-wide, naturally), and these upgrades expand each trailer's yard (allowing more ornaments to modify its style values).

This is where the game gets tricky. Upgraded trailers are worth a lot more rent money, but the expanded yards may bring neighbouring trailers into style conflicts. For example, if Billie Joe's trailer is upgraded and now overlaps with Bobbie Sue's yard, and Bobbie Sue's trailer is cool, it will reduce Billie Joe's old school rating, which will make her unhappy.

As the game progresses, residents' style demands will grow, and the balancing act becomes harder if you haven't arranged your trailers properly.

Tabloid tragedies

Goals usually consist of reaching a particular style value for your trailer park (300 trashy, say) or squeezing a certain dollar amount out of your residents before a time limit runs out.

In the end, though, *TPT* seems more like an amusement than a strategy game. Most of the enjoyment comes from the weird and wonderful characters, places, things and events that occur as you play. Tabloid headlines chart your progress, and UFO invasions, tornados and meteor showers are occupational hazards.

There's also a "first-person" option that lets you take control of residents (and cats, dogs and pretty much anything else that moves). You can move them around and make them fight or be nice to others (or to themselves –which makes them line dance, sadly).

On the other hand, there aren't a lot of scenarios to play: Just four stand-alone challenges, four open-ended "sandboxes" and two "tycoon" modes (consisting of four "linked" scenarios each). The pace of the game is such that you usually don't have time to really enjoy your park or interact with the residents – you're too busy monitoring rents and style needs.

Still, the game is quite funny and will amuse those with a taste for the bizarre. ◆

more INFO

Trailer Park Tycoon
$45 (street)
Jaleco Entertainment
www.jaleco.com/trailerparktycoon

TEEN T ESRB

Minimum requirements:
Windows 98/ME/2000/XP, 450 MHz CPU (600 MHz recommended), 64 MB RAM (128 MB rec.), 16 MB Direct3D or OpenGL 1.1 compatible video card (32 MB rec.)

15" LCD
* Color LCD Display
* 1024x768 res.
* .29mm Dot pitch
Now $ 399

17" LCD
* Color LCD Display
* 1280x1024 res.
* 3 Year Warranty
Now $ 599

80Gb HD
Special edition 8Mb Cache
Now $ 169

CDReWriter 48x16x48x
48x Write
16x RW
48x CDR
Now $ 69

Battery
CDRW DVD
Now $ 1299

On Sale Now
1176 Kennedy road Scarborough
(1 Light N. of Lawrence)
Daily 10 to 7PM Sat 10 to 5PM
* All Listed prices are for cash or interac only
416.757.8888
COMPU CANADA .COM

ATI 8500
8500LE
128Mb DDR
DVI
TV Out
Now $ 129

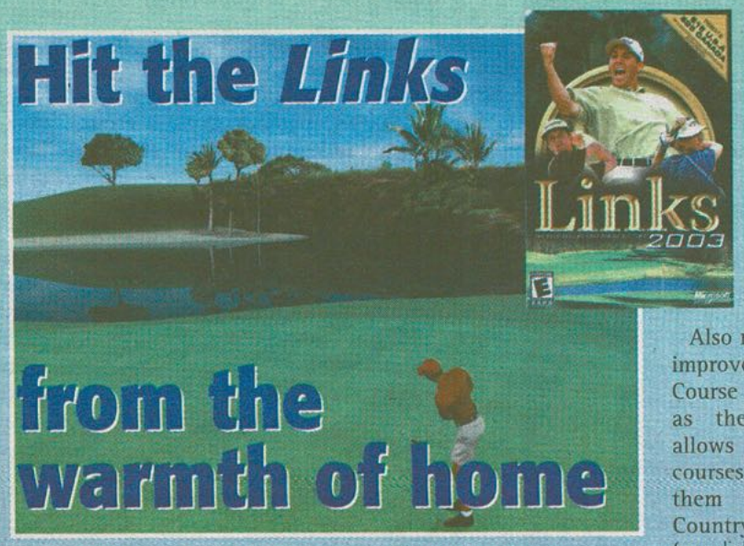
EPSON C42
2880 dpi
12ppm
USB
Now $ 59

2.4GHz P4
CDRW
DDR GF4
* system not exactly as shown
80Gb HD 512Mb
* Intel P4 2.4GHz 533FSB * 512Mb RAM * 40x12x40 CDRW *
* 80Gb H Drive * 3.5" FD * 64Mb DDR GeForce4 MX440 *
* 10/100 Ethernet * Sound 3D * KB * Mouse *
* MB - 4xUSB v2.0 * Support DDR333 *
* Monitor Sold Seperately *
$899

BONUS
OS & Office Suite
* AMD ATHLON 1.0GHz
* 128Mb RAM (upgradeable)
* CDReWriter & DVD ROM
* 20Gb Hard Drive
* 64Mb Video 2D/3D
* PCMCIA type II * S-Video
* 2xUSB * 10/100 Ethernet
* Sound 3D * 56K Modem
* 14.1" TFT LCD Display
* Internal Battery & Floppy
Other Models:
Intel P4 1.7GHz
Now $ 1599

By ANDREW MOORE-CRISPIN

Hit the *Links* from the warmth of home



While the snow is still on the ground, "snowbirds" migrate to Florida to wile away the winter season and will likely get in a few rounds of golf while there.

Those of us that are not so lucky must placate the golfing itch by hitting the virtual links. Fortunately, *Links 2003* puts its predecessors to shame and is much more like a true golfing simulation than ever before.

Where golf games have traditionally required players to hit timed button presses to make a shot (one to start the swing, one at the top of the scale for power and one on the down stroke to determine the hook or slice), *Microsoft Links 2003* simulates the back swing and down stroke using the mouse. Players pull back for the back swing, then return and pull through for the down stroke. Accuracy is determined by how close to straight up and down the mouse moves, making the game much more like the incredibly popular *Golden Tee Golf*'s control scheme. If you've never seen *Golden Tee* before, just go to a bar and look for a gaggle of men swearing and hammering a trackball into submission.

For those intimidated by the new control scheme, Microsoft Game Studios also included the easy swing, which is designed so younger kids can get in on the action, as well as the classic three-click swing from previous Links games.

However, once golfers hit a few drives with the Real Time Swing, there's no going back to the old way. There is an extensive tutorial that covers using the new swing style as well as general gameplay.

Aside from the improvements to the control scheme, other notable additions since the last *Links* outing in 2001 are new and much improved 3D golfer animations, which add believability to the game, and a new career mode, which is fun to play through.

Also new for 2003 is an improved Arnold Palmer Course Designer, which, as the name implies, allows golfers to create courses and post or trade them on the Links Country Club Web site (www.linkscountryclub.com) or through *Links* fan sites. The course designer is well featured and allows golfers to create just about any course they can imagine – whether or not it has a foothold in reality is completely up in the air. In addition to being able to create their own courses, gamers upgrading from past versions of *Links* can import courses from as far back as the 1997 version of the game.

The graphics in *Links 2003* are nothing short of spectacular. While the look and motion of the players has been greatly improved over past versions, the courses themselves are equally impressive. The course scenery is true to life, water looks pristine, the crowd looks quite believable, even the sand bunkers show individual rake marks and footprints.

Online play is also improved in this latest version of *Links*. Golfers have the option of going head-to-head in online tournaments against up to seven others, playing the Links Tour, while the Links Country Club Web site matches gamers of relative skill in tournaments where the results are posted to the site for all to see – *Links* also incorporates e-mail tournaments, where any number of golfers can compete on or offline by automatically sending results to the tournament organizer, who in turn sends out tournament standings to participants through e-mail. ◆

more INFO

Links 2003
$59.99
Microsoft Game Studios
www.microsoft.com/games

EVERYONE E ESRB

Requirements:
Pentium II 400 MHz, 64 MB RAM (for Win98/ME), 128MB RAM (for Win2000/XP and for Course Designer), 390 MB hard drive space (950 MB additional for Course Designer), 16 MB 3D accelerator card, 4X CD-ROM drive.

NEXT™ WEBHOSTING

STARTING FROM $6.95 PER MONTH

FREE 3 MONTHS HOSTING

ONE YEAR EQUALS 15 MONTHS
WEBMASTERS, DESIGNERS
CHECK OUR AMAZING
RESELLER PROGRAM
PROFESSIONAL WEB HOSTING

- Professionally Hosted Websites
- Domain Registration
- Unlimited Email Accounts
- Unlimited Hits, Transfers
- World Class Support Desk
- Same Day Set-up
- Fiber Optic OC-3 Connections
- 24X7 Toll Free Tech Support
- Microsoft FrontPage 2002
- Active Server Pages
- Vbasic, Java, Perl 5
- Unique IP Address
- CGI Support
- OBDC Support
- SQL7 & SQL2000
- Real Audio / Video
- Shockwave, Flash, Quicktime
- Web Statistics by Webtrends
- Counter
- Guest Book
- WEB Board
- Form-return
- Money Back Guarantee

ELOSOFT online
NEXTWEBHOSTING.COM IS A SUBDIVISION OF ELOSOFT

TOLL FREE 1.877.356.7638
LOCAL 905.760.8440

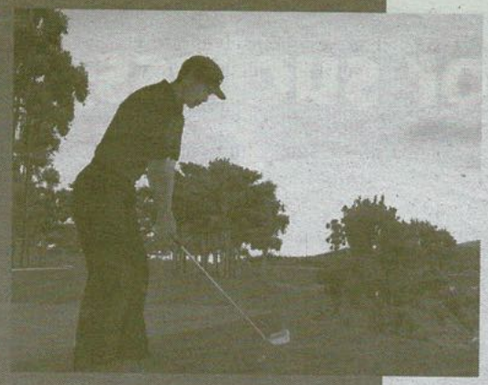
WWW.NEXTWEBHOSTING.COM ONE YEAR EQUALS 15 MONTHS

Looking for technology or computer related products?

Within minutes, the CanadaComputes.com Merchant Directory provides you with the local retailer you need.

MERCHANT DIRECTORY

WWW.CANADACOMPUTES.COM/MERCHANT_DIRECTORY



Take on Tiger in PGA Tour 2003

By ANDREW MOORE-CRISPIN

While Microsoft Game Studio's *Links 2003* caters to golf sim players, *Tiger Woods PGA Tour 2003* successfully blends the sim golf feel with slightly more arcade style gameplay and options.

Tiger Woods 2003 uses a similar control scheme to *Links 2003*, where mouse movement is used to determine back swing and follow through, giving golfers the swing control that most preceding golf games have sorely lacked. However, this is where similarities between the two games end.

Tiger Woods 2003 is much more about the single player experience than *Links 2003*. EA did include options for online play, but are charging a monthly server access fee for EA Sports games. A two-month subscription is included with the game. Up to four players can compete against each other online in a tournament or in stroke or match play.

The heart of *Tiger Woods 2003* is in the tournament mode, where golfers compete to earn cash to buy attribute points to progress through the different ranks (amateur, pro, champion and master). As can be expected, the purses get bigger and the competition gets stiffer as gamers progress.

Where *Links* games have traditionally taken what some would consider to be the high road by creating golf sims as opposed to golf games, EA's *Tiger Woods* franchise has traditionally been an arcade golf affair. Not so this time around. While the console roots of the game sometimes show through despite the noticeably sharper graphics and differing control scheme (console versions of the game use the analogue control sticks of the game pad to execute the "TrueSwing"), Tiger's PC outing is a completely different game from EA's console golf games bearing his name.

That said, some elements found in console incarnations of the game are also present in the PC game. Trophy Balls, which are awarded for making a long putt, difficult chip, long drive or other more creative objectives, like your first bogey-free round or scoring three birdies in a row, are part of both versions, though in the PC game, they take a much less central role.

The Career mode in *Tiger Woods 2003* is a fun diversion, but not quite what golf sim players might be expecting. Rather than starting off with a character and building up his or her stats by earning money in tournaments, gamers play a series of practice exercises like driving, chipping and putting contests. While honing your character's skills in these contests, other golfers on the circuit challenge you to matches where your character can earn some extra cash. There are also scheduled stroke play tournaments throughout the career, but these usually only take place on the front nine of a course, and as such are a bit unsatisfying.

The in-game graphics are quite amazing and are second only to actually being on the eight included courses (including Pebble Beach and St. Andrews). The golfer animations are similarly realistic, with the golfers actually looking like they are on the course, as opposed to the photo-realistic golfers standing out from their digital surroundings, as most previous golf games have done. ◆

more INFO

Tiger Woods PGA Tour 2003
$49.99
EA Sports
www.ea.com/easports

EVERYONE E ESRB

Minimum:
Pentium II 333 MHz, 64 MB RAM, Windows 95/98/ME/2000/XP, DirectX 8.0, 8 MB DirectX-compatible 3D accelerator, DirectX-compatible sound card, 4x CD-ROM drive, 1 GB hard-disk space, mouse, keyboard.

Recommended:
700 MHz Intel Pentium III (or AMD equivalent) Processor, 128 MB or more RAM, 32 MB T&L supported video card or greater video card with DirectX 8.1 compatible driver, 1 GB or more hard drive space.

ORACLE @ HiTech Institute
We are hiring
ORACLE DBA 9i, Upgrade 8i, Developer, J-Cert, Passport
Also offer Microsoft, Cisco, CompTia, Sun, IBM, Accpac Certification
HRDC/EI funding available for qualified applicants. Placement Services available
Registered and approved as a Private Career Colleges, International students are welcome

WHY TRAINING @ HiTech
* Consumers' Choice 2002 Award winner
* Industry Experienced & Certified Instructors
* Small batch size for personal attention
* Lab Assignment Series for hands on experience
* Excellent Passing Results
* Online exam preparation
* Excellent course materials, Cds,& CBT Library
* 40% Discount on your OCP exam fee
* Co-op program
* Guide to hidden job market

Diploma
Diploma in Networking (A+, MCSE CCNA, Unix Solaris) $4499
Diploma in Information Technology $8999

Certification
Oracle DBA / DEV. $3999
A+ / Network+ $499
CCNA $499 / CCNP $1999
MCSE $2299
MCSA / Unix $1599
MCSD/MCAD/ MCDBA $2299
C & C++ $999, VC++ $699
Java Certification $1599
M-Commerce $1999
Wireless Prog. J2ME $999
Office XP $699
ACCPAC $499, AutoCad $799
Accpac-$499

SPECIAL OFFER
50% OFF
Only $600
ADVANCED JAVA
JSP / EJB / UML / XML

22579114

Microsoft Certified Solution Provider
Oracle Workforce Development Program
ACCPAC
Toronto (Yonge & Bloor) 842 Yonge St. # 300 PH: 416-513-1535
Mississauga (Dundas W. & Hwy 10) 165 Dundas St. West #600 PH: 905-279-0123
www.htinstitute.com

ORACLE 9i
Oracle Workforce Development Program
Database Specialist
Diploma $ 4500
SQL
Oracle 9i Database Fundamentals 1&2
Unix
Windows 2000 Server
DBA $ 3499
SQL
Fundamentals 1 & 2
Performance Tuning
Application Developer
Track $3499
Intro to SQL , PL/SQL
Program Unit
Built-interface App. 1& 2
Orignal Curriculum
40% Discount on exams

Network Support Technician Diploma
$5200
Dos
Win 95/98
A+ Technician
UNIX
MCSE 2000
CISCO CCNA
MCSE $1999
Server, Professional, Active Dir. Services, Network Infra. Design Dir Services, Design Ntwk. Infra. , Design Security
OR
$299 each Module
A+ Certification
$499

Travel & Tourism
$4000
Reservation Agent
Ticket Agent
Flight Attendant
Travel Counselor
Sales Reps
E-COMMERCE
$1499
HTML, DHTML, JAVA,Web Server, Perl &CGI
UNIX
Level 1 $399
Level 2 $449

Office Admin
$4500
Elementary Acc.
Internet Comm
ACCPAC general ledger & Payroll
ACCPAC- Acc. Receivable/ Payable
Office. & Business Procedure
Ms- Word, PPT. Excel & Access
NETWORK+ $ 499
CISCO CCNA $ 399
JAVA $ 549
C, C++ $ 499

FAZCOM TRAINING
301 - 37 George St. Brampton, (905) 874 3311
www.fazcom.com
HRDC Approved
EI Recipients welcome
Approved PVS
Days/Eve/ Weekend Classes
CompTIA
Cisco Systems
Authorized PROMETRIC TESTING CENTER
Site # ON87
22581014

PC SHOP Computers
(416)293-8889
FRANCHISE NOW !!!
FOR DETAILED INFORMATION, CALL NOW!!! 416-293-8889 OR 519-568-8838
3833 MIDLAND AVE, UNIT15, SCAR. MON-SAT: 11:00am-7:00pm
McNICOLL MIDLAND
PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

AMD DURON 1400G $349
AMTRON MOTHERBOARD
128MB PC-133
32MB ONBOARD VIDEO
40GB ATA 133 & 56K MODEM
52X CD-ROM & 1.44 FDD
16 BIT SOUND CARD
10/100 NIC
300W ATX CASE
KB/MOUSE/SPEAKERS

INTEL C - 1.7G $399
ECS P4S5MG MB
128MB PC-133
32MB ONBOARD VIDEO
40GB ATA 133 HDD
52X CDROM & 1.44 FDD
10/100 NIC
32 BIT SOUND CARD
300W MID TOWER CASE
KB/MOUSE/SPEAKERS

AMD XP1800+ $669
MSI KT3 ULTRA-2
256MB DDR
ATI RADEON 64MB
40GB 7200RPM HDD
16XDVD & 1.44 FDD
48X16X48 CDRW
56K MODEM
32BIT S/C
300W CASE
KB/MOUSE/SPEAKERS

INTEL P4 2.0A $819
MSI 845E MAX MB
256MB DDR
GEFORCE4 MX440 64MB DDR
60GB 7200RPM HDD
16X DVD & 40X CDRW COMB.
1.44M FDD
10/100 NIC
16BIT SOUND CARD
300W ATX CASE
KB/MOUSE/SPEAKERS

UPGRADE PACKAGE
Intel P4 1.7/ECS P4S5MG $369
256MB PC-133 RAM/300W ATX CASE
AMD XP1800+/ECS MB $269
256MB PC-133 RAM/300W ATX CASE
HARD DRIVE
Maxtor 40G 5400/7200 $110/115
Seagate 40G/60G 7200 $115/127
Seagate 80G 7200 $158
W.D. 40G/80G 7200 $119/148
W.D. 80/120 7200 8M Cache $171/255
50PCS 48X CDR $13.99
100PCS 40X CDR $24.99
MICROPHONE $1.49
PS/2 MOUSE $1.25
PS/2 KEYBOARD $4.99
STEREO SPEAKERS $4.99
CD BOX $0.12/PC
P4 ATX CASE, WITH 300W P/S $29.99

MONITOR
17" SAMTRON $165
17" USED MONITOR $89
17" LG 700S/E700B $175/210
19" LG E900B $349
19" SAMSUNG 955DF $349
15" SAMSUNG 151S $490
17" SAMSUNG 753DF
186.99 WITH PC PURCHASE
BRAND NEW LAPTOP
INTEL P4 1.7G 256M DDR MEMORY
DVD ROM/ CDR/W 20G HARDDRIVE
56K MODEM 10/100M NETWORK CARD
IEEE 1394 FOR VIDEO EDITING
15" LCD MONITOR
$1,389.99
CAN U IMAGINE? SO CHEAP?

22583114

30% Off All Microsoft .NET Books
Only at
Pagebytes Computer Books
We can Satisfy All your Book needs Promptly
305 Lakeshore Road East, Mississauga
905-891-2112
WWW.PAGEBYTES.COM
pagebytes@sympatico.ca
Jan/Feb
Jan/Feb
22334014

Canadian-made RPG destined for success

A long, long time ago, in a galaxy not so far away, video game publisher LucasArts began creating *Star Wars* video games to suit all kinds of players, be they fans of simulations, strategy games, action/adventure hybrids, racers or 3D shooters. So, why have role-playing gamers been left out in the cold? That is, until now.

Knights of the Old Republic will be the very first video game RPG set in the *Star Wars* universe.

Not surprisingly, LucasArts turned to Edmonton-based BioWare – the makers of such critically acclaimed and successful RPGs as the *Baldur's Gate* series and more recently, *Neverwinter Nights* – to create the ultimate *Star Wars* role-playing game experience.

TC! made the trek to the capital of Alberta to spend some serious hands-on time with the ambitious and promising *Star Wars* game, due out on the Xbox this spring.

Star Wars: Knights of the Old Republic (*KOTOR*) takes places roughly 200 generations, or about 4,000 years, before the events of the *Star Wars* films. It's a time of epic conflict between Jedis and Siths – and the good guys ain't winning.

This is where you come in. But the path you choose is dictated by your actions; by the end of the game, you may be heroic and save the Republic or become an evil force within the galaxy. Like most RPGs, players can spend time at the start of the game creating their custom character or they can simply jump into the game with a few button taps.

KOTOR is a party-based game, so other allied characters – be they humans, aliens or droids – will join the travelling troupe throughout this 50+ hour adventure. In fact, the many sub-quests will vary depending on the members in your party, as will the dialogue trees, story twists and cutscenes. This makes the game much more replayable than most.

And talk about a mammoth undertaking – the game features 10 worlds to explore, multiple mini-games, more than 100 pre-rendered and in-game cutscenes and over 12,000 lines of spoken dialogue (with lip-syncing). There's even a significant love interest in the game, but BioWare won't reveal any details on that just yet.

The central hub in the game is Ebon Hawk, a huge Millennium Falcon-esque space ship that serves as a place to meet other NPCs (non-player characters), swap members of your party, get assignments and begin traveling to the various planets.

While exploration and puzzle-solving are an integral part of the gameplay, the combat is what will keep most console players glued to the tube until the wee hours of the morn. The battle system is turn-based, but the player has a few options on how to go about fighting enemies. One way is equip your party with weapons or Force powers (there are 50 of these in the game) and begin targeting baddies one by one, almost in real-time. Those who prefer strategy and tactics can pause the game and assign orders to their party before resuming. As a neat twist, the combat goes into slow-motion when the player needs to bring up the action menu to swap weapons, heal characters and so on.

KOTOR is played from a third-person perspective – which is ideal for a party-based game – and visual touches such as swooping camera angles and plenty of cut-scene sequences help reinforce the cinematic experience.

Both the indoor and outdoor areas are highly detailed, with an effort made to make the player feel he or she is walking around in a living, breathing world.

Role-playing game fans and *Star Wars* enthusiasts alike should easily find solace in *Knights of the Old Republic*. Not only is it the most ambitious project LucasArts and BioWare have undertaken, but it may very well be their finest. ◆

DECEMBER'S PHOTO SPREE WINNER

THE WINNER:

Congratulations to Wayne Harvey whose image titled "Blurred Skaters" won our fourth Photo Spree contest. Wayne receives a Lexmark Z65p Photo Jetprinter for his efforts.

The image was shot using a Fuji S602 digital camera using a 1/1.8 shutter speed to blur the fast moving skaters while exposing the dark background.

We were faced with another difficult decision in choosing the winner from the more than 40 entries for the Nighttime Photography Photo Spree assignment.

Again, congratulations Wayne Harvey for submitting the winning image.

Toronto computes! PRESENTS ITS 5TH Bi-Monthly

PHOTO SPREE

THE CHALLENGE:
Take a picture of Winter Sports

THE RULES: You must use a digital camera to capture the subject. Work can be submitted via e-mail (contest@tcp.ca). Accompanying your photo should be the make and model of the camera you used, the names of any software you used to modify the image and, if possible, the f/stop and shutter speed you used to take the photo.

Submit your photographs, along with the information from the form below, by March 7th, 2003. You can submit up to three photographs, all of which must be accompanied by a submission form. Entries must be submitted via e-mail. Files should be no bigger than 500 KB. One photo per e-mail.

Contest Rules: Prizes must be claimed by April 18th, 2003. Winners must provide valid identification upon claiming prize. The prizes awarded are not transferable and cannot be redeemed for cash. To enter and to be eligible to win, persons must be residents of Canada, and not employees or be domiciled with an employee of Canada Computes!, its affiliate companies, or advertising or promotional agencies. The winners will be selected by Toronto Computes! on March 14th, 2003 from among all eligible entries received on or before contest close date. Winners will be contacted by telephone or e-mail. In the event that they cannot be contacted within the first week following the contest another entrant will be selected. All entries become the property of Toronto Computes! and may be used in subsequent advertisements for the contest. All entries must be submitted by their artist and must be original work.

WIN!

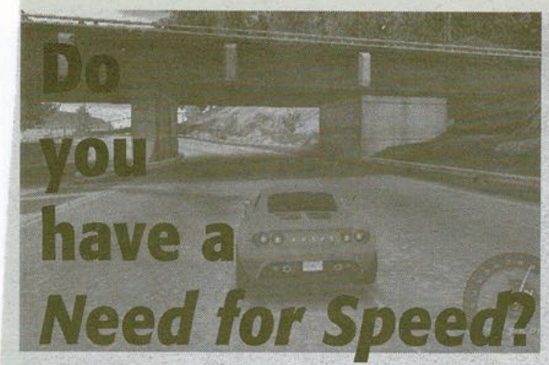
LEXMARK™
Passion for printing ideas.™

Lexmark Z65p Photo Jetprinter

Designed for photo enthusiasts, the all-new Lexmark Z65p Photo Jetprinter makes it easy to print colour photos that rival photo lab quality. The sleek Windows-based Z65p features four on-board camera card readers, dual paper trays and vivid 4800 x 1200 dpi output. Valued at $249.

Toronto Computes!'s 5th Photo Spree contest form. All submissions must contain this information

Deadline: March 7th, 2003
Name: .....
Address: .....
E-Mail: .....
Phone Number: .....
Age: .....
Occupation/School: .....
Title of Entry: .....
Camera Used: .....
Software Used: .....



Do you have a Need for Speed?

By NESTOR GULA

The first game I ever played on a PC computer, a 386SX16 by the way, was *Need for Speed* – the first version of that game, as I recall. You would steer, accelerate and brake using the keyboard, and the graphics were atrocious. It was not a pleasant experience.

Fast-forward about 10 years, and I'm playing *Need For Speed: Hot Pursuit 2* (*NFS*) – the latest in the line of this stalwart computer game. You still get to drive exotic cars most could never afford as recklessly as you would ever dare on impossibly twisty highways, dodging innocent traffic and police. The exotic cars are many here – Ferrari, Lamborghini, Porsche, Jaguar, Aston Martin, BMW and the like. There are a few "semi-affordable" cars, namely the Corvette Z06, Dodge Viper GTS and Ford SVT Mustang Cobra R. There are even cars not available in North America, like the Vauxhall VX220, Opel Speedster and the Lotus Elise.

The more cops you avoid and the faster you go in a race, the more points you amass and that, in turn, unlocks cars and a bevy of tracks.

In the Hot Pursuit mode, players compete with other AI cars and try to escape from police. You get points by shaking the police off and finishing ahead of the competition. You get more points if you take the advanced level and use manual shifting. In the Championship mode, players compete with other cars in a series of races for the World Championship – there are no police here.

I used a Logitech Momo Force steering wheel and the feeling was fine. I found that setting the game to an advanced level gave me much better control over the car and a good game experience. An irritating fact about the AI cars is that they seem to always come off best when you are involved in an altercation with them. Both you and the other car will go into a spin, and that car's forward pace will not be affected, while you lose valuable seconds. As well, the cops are biased. If you blow past a radar trap side-by-side with an opponent, the cops will target you for pursuit (this involves them bumping your rear quarter panel and sending you into a spin) and let the opponent go on their merry way.

A great addition to this franchise is the "Be the cop" feature. In the Single Challenge mode, you can be the pursuer chasing after the cars that dusted you in previous races. This is fun because you can call on backup, set spike strips, set up road blocks and even call for helicopter support.

The latest *Need for Speed* is a hoot. Although it is highly unrealistic, especially in terms of the damage that these fragile exotic cars suffer while bumping with sturdy police cars – this unrealism does not detract from the sheer joy of driving with reckless abandon, throwing caution to the wind. ◆

more INFO

Need For Speed: Hot Pursuit 2
$53.99
Electronic Arts
www.ea.com

EVERYONE E ESRB

Requirements:
450 MHz Intel Pentium III or 500 MHz AMD Athlon processor or higher, Windows 98/ME/2000/XP, 128 MB RAM, 4x CD-ROM, 1.2 GB free hard disk space, Direct3D capable video card with 16 MB memory and DirectX 8.1 compatible driver, DirectX 8.1 compatible soundcard, keyboard and mouse

Configure your system online

GAMING

TRITON BANSHEE X3:
Enermax Case w/350W Dual Fan PSU
AMD Athlon XP 2600+ Processor
ASUS A7N8X Motherboard with nVidia nForce2 Chipset
512MB PC-2700 333MHz DDR RAM
Panasonic 1.44MB Floppy Drive
60GB Western Digital 7200RPM Hard Drive
LITE-ON 48x24x48 CD-RW w/Nero CD Burning software
LITE-ON 16x/40x DVD-ROM
ATI Radeon 9700Pro w/128MB DDR DVI Video Card
Onboard 5.1 Sound Card/FireWire/LAN/Serial ATA
MS Internet Keyboard and IntelliMouse
MS Windows XP Home Edition w/License and CD
Triton Total Recovery CD
TOLL FREE Technical Support
1 Year Parts and Labour Warranty

$2,060

TEL: (905) 472-9622
TRITON COMPUTERS
www.tritoncomputers.com

Matrox RT.X100 System

TRITON MEDUSA M60
Enermax FS-710 Case w/350W Dual Fan PSU
Intel P4-2.4 GHz 533MHz FSB w/512k L2
Intel D845GERG2 Motherboard
512MB PC-2700 333MHz DDR RAM
Panasonic 1.44MB Floppy Drive
60GB Western Digital System Drive
120GB WD A/V Drive w/8MB Cache
80GB WD Export Drive w/8MB Cache
Pioneer DVR-A05 DVD-R/CD-RW w/software
Matrox Millennium G550 w/32MB DDR Video
Onboard 5.1 Sound Card & 10/100 NIC
MS Internet Keyboard and IntelliMouse
MS Windows XP Pro w/License and CD
19" Samsung SyncMaster 955DF Flat CRT
Altec Lansing ATP3 Speakers
5 Blank DVD-R Media, 1 Blank DVD-RW Media
Adobe Premiere 6.5 Installed & Configured
MPEG2 Encoding, RT Chroma Key, RT Effects

$4,749

Also Available ▶ Pinnacle Pro-ONE RTDV ▶ Canopus DVStorm2

2228614

Cisco Training
CISCO SYSTEMS
WinNET Produced 18 CCIEs

Tejas Suthar
CCIE # 8423, Telus
Without instructor Harith's commitment, support and encouragement this great achievement in my life would have only been a dream...

Ravi Chandran
CCIE # 8671, Telus
"Harith, you have been an inspiration and a valued role model in my career. Your interest and motivation were my driving force behind the CCIE designation that I hold today..."

Terence Summerville
CCIE # 8927, Infostream
"I would like to express my deep appreciation to WinNET Systems for their help and encouragement in obtaining my CCIE certification."

Virgillio Santos
CCIE # 9454, Bell Canada
"WinNET Systems has greatly exceeded what I have expected a training school to provide its students and for dedication I am truly grateful."

Oswald Fernandes
CCIE # 9753, Bell Nexxia
"The secret to success in this challenge are hard work, perseverance, focus and confidence. With these qualities and WinNET Systems's support I am happy we have achieved this challenge together."

Usman Mahmood
CCIE # 9900, Next Innovation
"No doubt! WinNET is the best institute to offer CISCO training. Harith is not only an instructor but also a CISCO GURU."

Nigel Maharaj
CCIE # 9916, IBM Global Service
"I have been studying CCIE for 2 years and got nowhere. After Harith instruction I was able to do very complex labs. Harith CCIE course was invaluable..."

Shane Lal
CCIE # 10214, ICS
"... I started with CCNA @ WinNET and continued through CCIE. I put lot of hard work and dedication into it, but without Harith's guidance, help and inspiration it wouldn't be possible. Thank you WinNET..."

Kamran Adil
CCIE # 10373, Bell Nexxia
I think WinNET's most valuable contribution to my CCIE certification was Harith's teaching and guidance, without them I wouldn't have achieved this goal. WinNET did an excellent job of preparing and inspiring me to take this significant step in my career.

Sarumathy Vijayakumar
CCIE # 10385, Cyber Canada Inc.
"I would like to thank Sam and Harith for the outstanding training and education that I received at WinNET Systems. WinNET and its staff go beyond expectations to ensure that their students are taken care of..."

Hans Ma
CCIE # 10424, Canadian Automobile Association (CAA)
I had a wonderful experience at WinNET Systems Inc. I believe it carried me through my Cisco Certifications from CCNA through CCIE. I wish I could express my gratitude in these few lines. Thank you WinNET!

Raj Thava
CCIE # 10425, IPCC
"WinNET has made such a positive difference in my life. It was probably the difference between success and failure. There are endless good things I could say about WinNET and Harith. In short WinNET is the best!"

Ganesh Shanmugalingam
CCIE # 10662, AT & T
"I would just like to say that my decision to attend WinNET CCIE course was one of the best education decisions I could have made. WinNET provided me with what I needed to make it in the competitive Information Technology marketplace."

Mehrdad Mostafavi	Giuseppe Giorgio	Ali Khatibi	Lili Zhao
CCIE # 10383	CCIE#10422, Next Innovation	CCIE #10423, Ericson	CCIE # 10252, Inspired Contact Center

The courses are designed by

HARITH
Double CCIE - R/S & Security
B.Sc. Eng., MIBM,CNE, MCSE, CCNP, CCDP, Cisco Security Specialist & Cisco Voice Specialist
MS Certified Trainer

Visit Our Lab.....

- Over 100 Cisco Routers - 7500, 4500, 3600, 2600 & 2500
- ATM Switch and Catalyst 3550
- ISDN lines, ADSL Line & Frame Relay Circuit
- Catalyst 5500, 5000 & 1900 Switches

For CCNA, CCNP, CSS, CCIE,
Microsoft, UNIX, Check Point & Other IT training needs, contact:

WinNET SYSTEMS
HI-TECH TRAINING & CONSULTING

TORONTO
1200 Eglinton Ave. East
Suite 100, Toronto
(Don Mills & Eglinton)

Tel: 416-447-TEST (8378)
www.winnetsystems.com

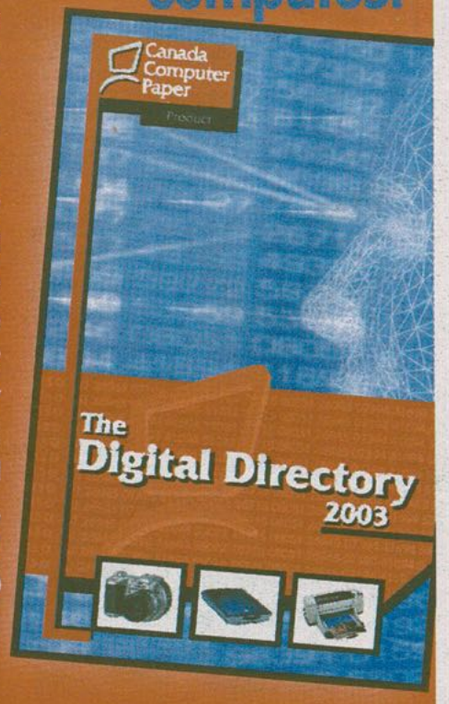
MISSISSAUGA
918 Dundas St. E
Suite 206, Mississauga
Tel: (905) 949-TEST (8398)

22583414

FREE!

Get a FREE Digital Directory by subscribing to Toronto computes!

The Digital Directory is a compilation of all Canada Computer Paper's advertisers--exclusive suppliers to the Canadian high-tech industry. Included is a guide to industry resources, knowledge and factoids. Even valuable coupons for your home, office or workshop! Receive your free Digital Directory by becoming a NEW subscriber! Fill out the form below and mail back with your payment, to: **SUBSCRIPTIONS! 625 Church St., Suite 600 Toronto, ON M4Y 2G1**



PRICE:

$21.39, includes taxes, shipping and handling.

Toronto computes!

The Technology Lifestyle Magazine

Fax your form, toll free, to 1-866-263-0899 or call, toll free, 1-800-465-3517. E-mail us at subscriptions@tcp.ca or apply online at www.canadacomputes.com

For US Subscriptions. please send $75 CDN. For International subscriptions, please send $135 CDN.

YES! I will receive a **FREE** Digital Directory with my new subscription to Toronto computes!

Name _____ TCF03DD

Address _____

City _____ Prov. _____ Postal Code _____

Email or Telephone Number _____

PAYMENT OPTIONS:

☐ VISA ☐ MasterCard ☐ Cheque ☐ Money Order

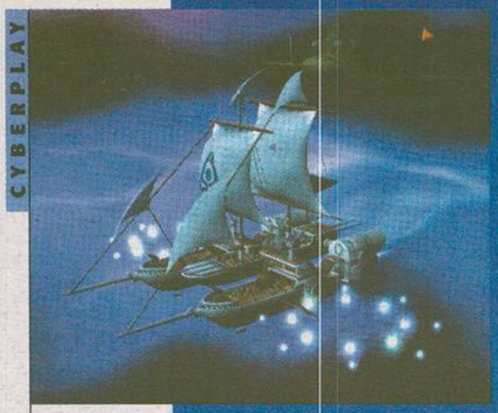
Credit Card # _____ Expiry date _____

Signature _____

CONVENIENT SUBSCRIPTION OPTION:

☐ ***NO MORE RENEWAL NOTICES!*** Please don't send me any renewal notices. *I will receive one annual invoice at the most current rate.*

CYBERPLAY



Battle at Procyon continues adventures of Jim Hawkins

By CHRIS TALBOT

The newest Disney Interactive title, *Treasure Planet: Battle at Procyon*, developed by Vancouver's Barking Dog Studios, continues the adventures of Jim Hawkins, the main character in the recent Disney animated flick, *Treasure Planet*. However, this computer game isn't kids' play; it's a serious real-time naval strategy game that can be played by people of all ages.

The story takes place five years after the adventures in *Treasure Planet*, and Jim is now at the end of his schooling as a cadet in Her Majesty's Royal Navy. The game begins during the graduation exercises of Jim's class, where Jim and his fellow grads must prove what they have learned during their time at the academy (which is learned by taking the basic and advanced tutorials, of course). The exercises are rudely interrupted by a pirate attack, and Jim must intercept the pirates and fend them off. Simple enough.

Beginner real-time strategy (RTS) players will probably find the ease and simplicity of the point-and-click interface to be an excellent introduction to RTS games. Commands are all given through the use of the mouse, so there's no need to worry about complex keyboard commands. For instance, moving a ship is as simple as pointing the mouse at an area in the Etherium (space) and clicking the left mouse button. Players move the camera by holding down the right mouse button and moving left or right to pan and forward and backward to zoom in and out. Moving the mouse over an enemy ship will change the mouse icon to a target and a simple left mouse button click will give the order to fire on the ship.

The bottom quarter of the screen is taken up by command buttons. Clicking on any button will issue the appropriate command. This control panel is also where players can access the map showing the area around Jim's ship (or fleet).

Speaking of the ships, they are rendered in 3D and look quite good. Animations are smooth and fun to watch. However, the game is played out in 2D. Movement through space is only on the X and Y axes (I haven't seen *Treasure Planet* yet, but I've been assured it's this way in the movie – also, it's simpler for beginners if they don't have to worry about attacks from above or below).

Advanced players might find the game to be a bit too simple, but it's still good for a few hours worth of fun. The game gives explicit directions to accomplish goals and there is always a compass just below the ship that points in the direction you have to go to complete the next goal in any given mission. In that way, the game baby-sits players, which might get a bit irksome for experienced RTS gamers. However, the naval battles are fun to play, so it's worth overlooking *Battle at Procyon*'s attempts to satisfy RTS newbies.

Overall, the game is best suited to younger gamers with an interest in tactics and strategy or to RTS gamers who just can't seem to remember bizarre or complicated keyboard commands. Simple to install and easy to learn to play, it's worth joining Her Majesty's Royal Navy in *Treasure Planet: Battle at Procyon*. ◆

more INFO

Treasure Planet: Battle at Procyon
$29.99
Disney Interactive
www.disneyinteractive.com

EVERYONE E ESRB

Requirements:
Windows 98/ME/XP, Pentium II 450 MHz processor or faster, 64 MB of RAM (128 MB for Windows XP), 750 MB of free hard disk space, CD-ROM drive, 16-bit DirectX 8.1-compatible soundcard, 16 MB video card with 3D acceleration

Get a free copy

of Digital Matrix: Roadmap to Digital Photography and Video

DIGITAL MATRIX

A CANADA COMPUTER PAPER PRODUCT

Request your free copy at* www.canadacomputes.com/digitalmatrix

or complete the following form and mail to **Digital Matrix** 625 Church St

Toronto Ontario M4Y 2G1

Information

☐ **Yes I want to receive a free copy of Digital Matrix**

Name _____

Address _____

City _____ Province _____ Postal Code _____

Phone _____ E-mail _____

*Copies mailed May 2003

22585014

Symptoms of involuntary multi-tasking

I suffer from multi-tasking. In spite of its regular appearance in help wanted ads, I'm convinced multi-tasking is not a helpful quality. I'm compelled, while working, to switch between programs to check my e-mail or my calendar in case I've missed something. If a question, however unrelated to what I'm doing, pops into my head, I face an uncontrollable urge to pop onto the Web and research the answer, right this minute. In fact, I've been meaning to find out ...

Oops. See what I mean? It's a habit I keep meaning to break, and maybe I should have made it a New Year's resolution, but ... Well, I just spent the last 20 minutes looking up the current wisdom on keeping New Year's resolutions and ... need I say more?

The trouble is, for me, multi-tasking is not doing a number of things at once, but rather leaving one thing unfinished to do another and then either worrying about what else I should be doing, or forgetting what I was doing in the first place.

It's also a habit that isn't really very game-compatible. Most games take over the whole computer. What if I'm playing and someone is trying to message me, or sends me an e-mail and is waiting anxiously for my reply?

If I desperately need to look something up online while I'm playing, I have to quit the whole game, open up a Web browser, do the search, then start the game up all over again. I may have to set up a home network and keep two computers on my desk, just to get around this problem.

This came to light recently while I was playing *Tennis Masters Series 2003*. I've watched some tennis on television occasionally, and even hit a ball around a court a few times, but it wasn't until I started playing my first exhibition match on the PC that I realized I know nothing about tennis. Though I was sure I could find out everything I needed to know online, and in spite of the fact that it would have given me a chance to check my e-mail, I was reluctant to exit the program.

The manual helpfully points out that the game gives me the choice of four different serves, which can be varied by the level of power and precision I put behind them. The trouble is, I have no idea of the difference between these types of serves and how the power level, for example, might affect them. Plus, which might be the best serve to use against which of the three playing styles?

To be fair, there are some brief explanations and "coach tips," but most of my serves are still only guesses. I figured if I varied them every now and then, I might keep my opponent on his toes. Well, that's the theory. In reality, I think I've only had an opponent miss one of my serves. Needless to say, I haven't won a match yet.

Incidentally, while I was looking through the manual, I noticed the following: "If you or your child experience any of the following symptoms: Dizziness, blurred vision, eye or muscle twitches, loss of consciousness, disorientation, any involuntary movement or convulsion, while playing a video game, IMMEDIATELY discontinue use and consult your doctor."

Wow. I think it goes without saying that if I lost consciousness I would immediately discontinue playing. But what I'm wondering is if these symptoms can escalate, because I'm pretty sure I've been experiencing involuntary muscle twitches. How else can I explain the slow motion replay that shows my player actually ducking away from the ball? Or the one where the ball is heading toward one corner of the court and my player is running in the opposite direction? Or the occasional quick swipe of the racquet through the air in spite of the fact the ball is clearly on the other side of the net? Some sports programs compile a weekly montage of sports bloopers for the entertainment of their highly skilled remote control wielding audiences. Maybe I should send them my clips.

I'll do that right after I look up "tennis rules and strategy" online. And check my e-mail. ◆

IT Skills Shortage

Help fill the gap!

In 2002, Ontario will add **38,000 new IT jobs** but **10,000** may go unfilled due to a **skills shortage**.* Humber College offers the programs you'll need to fill the gap! Full & part-time programs available.
*ITAC study, May 6, 2002

- Network Administration (A+, Net+, MCSA)
- Network & Business Administration Professional (ITP-Information Technology Professional, 3 month work term)
- Oracle 9i DBA
- Internet Software Development (Java/WebLogic or Java/Oracle or .NET Solutions)
- Cisco CCNA
- Sun Java
- J2EE Enterprise Accelerated Career Plan
- Microsoft .NET Accelerated Career Plan
- MCSA
- A+

INFO SESSION - CHECK THE WEB!

HUMBER School of Information Technology

416.675.6622 ext. 4937

www.it.humberc.on.ca

2257921A

Certx college LIMITED previously known as Certification Express

Regd & Approved as a Private Career College under PCC Act. Official Comptia(A+) & "Microsoft Certified Partner"

Microsoft Certified Solution Provider

A+

MCSE/MCSA/MCDBA/A+/CCNA/UNIX/JAVA

Actual Cases: Karen W: Zero background + MCSE w/Us >90K job, Kevin P(IBM), Boris P. (ING Bank >65K) Tony T. (100K),Gul S ex Welfare...now IT job with our help.

NEW * JOB Chances USA* For all MCSE's *

(Be a Hand Crafted Confident Professional, Not a Mass Lectured Novice)

"ONLY"

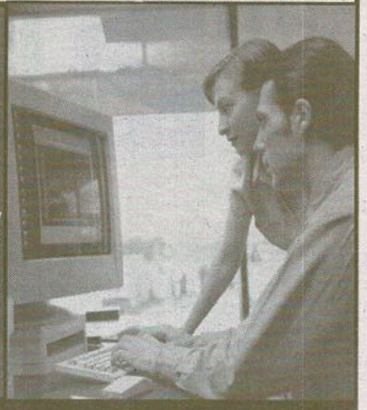
One On One Explanations + Topic by Topic + Unlimited Time & Hands on = 5th Year of 99% Exam by Exam SucceS$

All Instructor Lead w/Unlimited Hands On/ Flexible Timings/On Yonge/Sheppard Subway

Exam Provider Partners: Microsoft/Cisco/ Certified Internet Webmaster/A+

Helping Immigrants. EI Support

(www.certx.com) tony@certx.com



Toronto:45 Sheppard Av. East, #317, (Yonge/Sheppard Subway). Tel. 416-223-2220
USA: 1372 Peachtree St. #108; Atlanta; GA 30309. Ph: 1-866-MY-CERTX

2257971A

To place an ad or request more information, please send an email to adclass@tcp.ca or call Donna Eng at (416) 923-7100 ext 1206. Out of Toronto please call 1-800-465-3517.

BUSINESS ACCOUNTING

NOBEL & ASSOCIATES INC. Small Business Accounting, Bookkeeping & Tax Preparation (416) 876-8993.

COMPUTERS

DEAD PENTIUM LAPTOPS WANTED Fair prices paid. Email trevortasman@hotmail.com

USED LAPTOP FOR SALE, WARR, Lowest price. CPQ Tech repair to component level (416) 937-1537.

LAPTOPS NEW & USED, Used Desktops, Monitors, 17" – 21" from $89 www.LessLaptop.Com 416-401-8866.

QUALITY USED LAPTOPS / NOTEBOOKS with warranty (905) 470-1857

HARDWARE

COMPUTER SYSTEMS, PARTS: Main Boards, CPU, H/D, Monitors 14" $10, $15" $50, 17" $90, Speakers, (416) 661-7211.

GINETIX Computer Clearance Centre Servicing $9.99 www.jupitercomputer.com 905-848-3477

Refurbished
Sun microsystems
- Sparc 5,10,20
- Ultra 1,2,5,10,30 & 60 416-523-8324
- E 150,250,450 & E220,420
- Sun Monitors 15",16"17",19" & 20"
- Memory, Hard Drive & CD ROM reader

www.microprocanada.com 416-523-TECH (8324)

SONY CLIE COLOUR, ext.wty, 2 cradles, case, keyboard. Like new $450 (value $900) 905-770-3469.

SONY PLAYSTATION & PS2 MOD chips installed, from $40. full Guarantee. Tel: (905) 947-4624.

TRADE-IN your old CRT monitor for a new LCD. Get a credit on your trade-in monitor, up to $80, towards the purchase of a new LCD monitor. Visit us at www.svselectronics.com

INTERNET

SAVE!: $9/MTH. UNLIMITED INTERNET ACCESS, Web Hosting, Spidercom Corp. @ 416-657-0908. 146 Vaughan Road.

LEGAL

LEGAL HELP: % basis, insurance specialist, quick settlement, more $ 4 U, (416) 699-5000 David Smith.

PC COMPUTERS

FEBRUARY SPECIAL'S

DESKTOP PC'S (Refurb. Like new)

P166, 32MB, 2.1GB,	$49
PII 350, 64MB, 6.4GB, CD,SND,USB	$149
PII 350, 64MB, 6.4GB, CD, SND + 17" SVGA	$249
CELERON 400, 64MB, 4.3GB, CD+15" SVGA	$199
PII 400, 64MB, 6.4GB, CD, SND, USB	$179
PIII 450 & up	from $279
Notebooks	from $149
Laser Printers	from $149

MONITORS (Refurb. Like new)

15" From $49 Compaq, HP,
17" From $89 DELL, IBM,
20" and up from $149 & NEC

Call for other configurations

DSL Computers & Electronics

5200 Finch Ave. East, Unit 107, Scarborough (Finch & Middlefield) Phone: (416) 335-5126 | Mon-Fri 10am to 7pm Saturday 10am to 5pm

PRINTERS

HP Laserjet 3/3p 99.95, 3D 179.95, 4SI 299.95, 4+ 335.00 6MP 375.95,downtown Toronto (416) 977-3331.

LASERACE ENTERPRISES Laser Printer Repairs Sales & Service (905) 595-0332 www.lazerace.com

NEW HP LaserJet 2200dn. Street $1769. Ask $900. Details, Bill, 905 528-5619 aft 7:00.

LASER PRINTERS & Toner Cartridges Onsite & Depot Service Supplies & Accessories Refurbished Printers Brampton Technology Services 190 Wilkinson Road, Unit 9 Tel: (905) 796 5488

REPAIRS

S.C.E. REPAIRS
* Specialize in big MONITORS
* Printers, PC, MAC, Copier & FAX
* 30yr professional experience
* Free estimate & the best price

Sale: CD/DVD/CR-WR $20/45/55
HD: 4G/8G/10G $ 40/65/75
Monitor 14"/15"/17"/20"
$20/50/95/199
905-305-1205
825 Denison St. Unit 25
www.suncomputers.ca

SERVICES

#1 DATA/PASSWORD RECOVERY, BACK UP CLONING, NETWORK & OTHER SERVICES 416-636-8858 Computer Datanet

15 YRS PC-HELP! Solve/Teach: all soft/hard/net probs on-site, low $, (416) 699-5000 Bob Davis.

A1 WEB PROGRAMMING ASP/PHP/SQL Database. Best Rates. Call Mike 416.888.8409.

ACEME Laptop sales/service NW/SW/HW repair to component level, $save, Mark 416 412-7330.

ACE WEB PROGRAMMING/ UPGRADES html/js/cf/php/perl/mysql & more www.ACEinTO.com 905.851.0357

AFFORDABLE Hardware/Network/ Software/Internet Services. 416-636-8398 or e-MyComputer.com

AFFORDABLE HIGH SPEED WEB HOSTING www.multiwebhosting.com (416) 821-7801.

Affordable WEB DESIGN www.WebLineOnline.ca Call Alex (416) 631-8404

APPLE POWERBOOK REPAIRS (Wallstreet, Lombard, Pizmo,1400), broken screen, drops (416) 977-3331.

Business Data Solutions
Database Design, Programming, Maintenance & Up-sizing
Call us or visit our website to arrange a free evaluation of your needs
416-516-6911 1-866-506-3684
www.businessdatasolutions.ca

BIZ & HOME PC/MAC help @ your Home/Office -Win95/98, MsOffice, AutoCAD, Net Call Tim 384-6467.

C&C COMPUNET Onsite Service PC Repair/Upgrade/Virus Scan Network Solutions Cable Running and Repair

WEB Design & Hosting
Flash animation, Dynamic interactive pages, E-commerce, Database backend.
Visit www.Compu-IT.ca
E-mail:sales@compu-it.ca
Questions? Call
905 281 2500

Phone Line Relocated/Repaired Onsite Maintenance Training Onsite Emergency Response 416-691-2301, 416-858-0751

CABLING INSTALLATION for home & office. Call 905-770-5710 www.connectivityshop.com

COMPUTER REPAIR: HOME & BIZ Build, Repair, Upgrade and Support Call Mike: (416) 494-3263 cell: (416) 994-4729

COMPUTER REPAIR, home-biz network, server, desktop, internet, antivirus. 10y exp, all prob on-site, low $ Call Milan@416.876.4487

COMPUTER REPAIR, Network Web Design, On Call Help 1-866-769-9900 www.3tara.com 905-456-6560.

DATA RECOVERY from any bad Hard Drives. System Recovery. PC Repair and Networks. Low prices. 416-762-0801

KEN THE COMPUTER DOCTOR House calls for PCs. DOS and Windows repair. East Toronto thru Oshawa areas. Cell: 416-464-1833.

LOWEST PRICES: Design, Development: Software, Database, Web (optional free), www.topsbiz.ca or Call: (416) 661-7452.

ONSITE PC/MAC SERVICE, Installation, Troubleshooting,Networking,Tutoring Sam 416-829-9635

ONSITE PC/NETWORK/SERVICES For Home/Commercial. 905-816-0100, 416-579-5731. ww.FTMCOM.com

On-Site Services
Pay When Hassles Gone!!!!!
Hi Computers
2190 Warden Ave (Sheppard, HW401)
Networking
Installation - Troubleshooting
PC-Repairing - Upgrading
Internet Sharing - Emails
Rogers /Sympatico /ISDN / Routers
Business Maintenance Package
From $25/hr In-Store Services
From $35/hr On-Site Services
Microsoft Certified Professional 416-490-8868 416-457-3668

SKILLBUILDERS
COMPUTER PRODUCTIVITY SKILLS TRAINING
Onsite & Classroom Training for individuals or groups
Many courses available, call: 416-784-4134
OFFICE, COMPUTER SKILLS, WEB DESIGN, PROJECT 2000, GOLDMINE A + CERTIFICATION, CONSULTING
www.lmssystems.com

Professional
Web Design
Database Service
e-commerce
Graphic Design
and more
www.irondeco.com
416-505-3973

Compatible Toner Cartridges
For Printers, Photocopiers,Faxes, Drum Units
Excellent Results
Every time you print
Save more than 40%
Call for prices and free delivery
Laser Dina Charge,
13 years in business
Print Fast, 2078 Lawrence Ave East, Scarborough ON M1R 2Z5, Tel: 416-617-0231
43, Tuscana Blvd, Vaughn, ON, L4K 5J2, Tel: 905-303-6269, Toll Free: 1-877-846-9359

WEB HOSTING
From $1.59/mo
- 100MB Space
- 5GB Bandwidth
- Perl PHP MySql SSI
- FrontPage2002

www.long4net.com

ML3 · STUDIOS inc
Web & Graphic Design
Logos . Banners . Corporate ID
Web Hosting . Photography
Computer Sales/Service
905.660.3230
www.ML3STUDIOS.com

PC, LAPTOP Hardware/Upgrades/ Repairs. www.geocities.com/sysmatic1 or (416) 882-4210

DO YOU TALK OVER THE NET?

$75/- including shipment in Canada
MEGALITH's SOUND Bullet
Automatically switches-over your PC audio, to your phone-set, upon lifting receiver!
No Drivers or Software to Install
WWW.MEGALITH.NET/SBULLET.HTML
SBULLET@MEGALITH.NET
1-877-MEGALITH
Resellers Invited!

Hard-to-find parts, cables, adapters, connectors, & accessories.
Email: sales@mycableshop.com
Toll Free: 1 (866) 449 4498
mycableshop.com

Novatrex
Complete Small Business Solutions
Custom Software
Database Solutions
E-commerce Solutions
Firewall and Network Management
Unix / Linux Administration
Unix / Linux Training
Web Hosting
416.209.8220
www.novatrex.com

GET CERTIFIED!
Quality training in a well-equipped lab
1st session free for you to evaluate

MCSE	$1685
MCSA	$895
Or ($260 each module)	
CCNA	$335
A+	$365

Private Tutoring $22/hr
Call: (905) 763-7267
ParsNet Systems
www.parsnets.com

PC TECH Service, Upgrades, Network Security, Virus Removal. Onsite. Low Rates 416 560-7850

Page 2002 Computer Help, Troubleshooting, Tutorial, Internet 416 221-1968 www.page2002.com

Professional laptop/notebook REPAIRS, new/used PARTS, UPGRADES, RENTALS, password removals (905) 470-1857 www.NotebookSolutions.ca

Laser Printer Toner & Repair
Copier, Fax, Inkjet Cartridges,
Service Tons of recycled toner, inkjets, ribbons
HP II, III $39; HP IIP, IIIP $49, A30 $75; HP 5L, 6L 1100 $49; HP 4000 $79; Optra E $39; Oki 400/600E $17, OPC $99; Xer WC 385 $89; Xerox XB 60, 80, XC 820 to 1255 $99
We carry major brands 905-890-0330
We Buy Empty Cartridges pmdave12@aol.com

PROFESSIONAL SOFTWARE DEVELOPMENT Andrei 905-709-0568 www3.sympatico.ca/ansvel/home.htm

MONITOR REPAIR
PC, MAC All Models & Sizes, TV VCR, Electronics Repair
Free Estimate & Low Prices.
Sell Used Monitors
(905) 415-8855
(call: 8:30am - 9:30pm)
Ruan Computers & Electronics
107 Telson Rd
(North of Steeles and Victoria)

SavingHosting.com $1 Web Hosting VisaHosting.com-your visa to hosting solutions!

WEB DESIGN 416.635.9411 www.easyimaging.net

Web Design, On-line Business, Flash & Computer Animation, Multimedia Presentation. Professional & Best Rates Guaranteed. www.jumpmediacenter.com 416-588-4638, 416-648-0133 (cell)

WWW.WEBHOSTCITY.COM Windows Hosting, fast and reliable, asp, asp mail, SSL Call 877-446-7195

Flash Web Design
Affordable Web Design
Hosting • Makeovers
evan@dtdmedia.com
www.dtdmedia.com
Call: (416) 977-8987

WANTED

BUY NOT WORKING PARTS AND SYSTEMS. All Components Wanted. 4544 Dufferin Street, Unit #42, North York, ON 416-661-7211

BUY USED AND UNWORKING LAPTOPS. Authorized HP, Dell Tech do the best service (416) 937-1537.

WANTED NOT WORKING/Working Computers Corporate Clients only, Large Qty 416-994-8324.

CRS
COMPUTER RENTALS & SALES
Sales, Rentals, Service & Networking
795 Warden Ave. Scarborough, Ont.
(T) 416-751-5000 (F) 416-751-5637
www.crs4computers.com
EST. 1986

Compare-YOU be the judge

	CRS	YOUR DEALER
*Rent it - daily, weekly or monthly.	☑	☐
*A full system purchase[2], entitles you to "LIFE TIME labour warranty".[3]	☑	☐
*If you like the rental apply 80% of the rental, to the purchase.	☑	☐
*Network your systems or servers.	☑	☐
*Keep your system up-to-date with our guaranteed buy-back plan.[4]	☑	☐

MONITORS
Envision LCD.....$399.00
LG 17" 700S.....$179.00
Samsung 17" 753DF.....$209.00
CTX 17" PL70.....$169.00

PRINTERS
Epson C42UX.....$62.00
Canon I320.....$97.00

USED MONITOR/SYSTEMS
15" Grade "A".....$65.00
17" Grade "A".....$110.00
PII 400,64mg,4-6gb,CD,SC,NIC.....$169.00

ACCESSORIES
6ft USB AB cable.....$ 1.99
Power bar 6 outlet.....$ 5.50
USB PCI card 2.0.....$ 29.00
350watt ATX P4 P.S.....$ 25.00
580watt PMPO speakers.....$ 14.99
80 min 50pak cd spindle.....$ 15.99
5 port Aopen 10/100 switch.....$ 30.00
Logitech optical Mouse PS/2/USB.....$ 16.49
Jamcam digital Camera.....$ 44.99
Logitech quickcam xpress.....$ 33.99
USB PS/2 silver Mouse.....$ 2.99
650VA UPS Backup.....$ 79.00

SYSTEM ** VALUE SERIES **
Duron 950Mhz,MB 810 skt-A W/Sound, 56K Modem,Video,10/100,128 SDRAM, 1.44 floppy,30gb 7200RPM HDD, Mid tower Case, PS/2 Keyboard + Mouse,160 watt Speaker.
***ONLY.....$ 369.00 ***

SYSTEM ** PLATINUM SERIES **
ASUS P4SE skt 478 MB w/audio,P4 2.4ghz CPU, 256DDR PC266 RAM, 1.44 floppy, 56k modem, 60gb 7200RPM HDD,GForce2 MX400 64mb Video, Dlink 10/100 NIC,LG 48x24x48,580watt subwoofer Mid Tower case,Win Xp-Home,MS Internet KB/MS.
***ONLY.....$ 1049.00 ***

NETWORKING
Dlink 4 port router DI-604.....$ 75.00
Linksys 10/100 PCI NIC.....$ 12.99
25' RJ45 cat 5E cable.....$ 3.99
Linksys USB 10/100 adaptor.....$ 19.99

CDROM/DVD/CDRW
LG 52x.....$ 32.00
LG 16x DVD.....$ 60.00
LG 48x24x48.....$ 79.99
Pioneer DVDRW A05.....$ 449.00

MON-FRI 9 a.m. - 6 p.m
SAT. 10 a.m. - 4 p.m

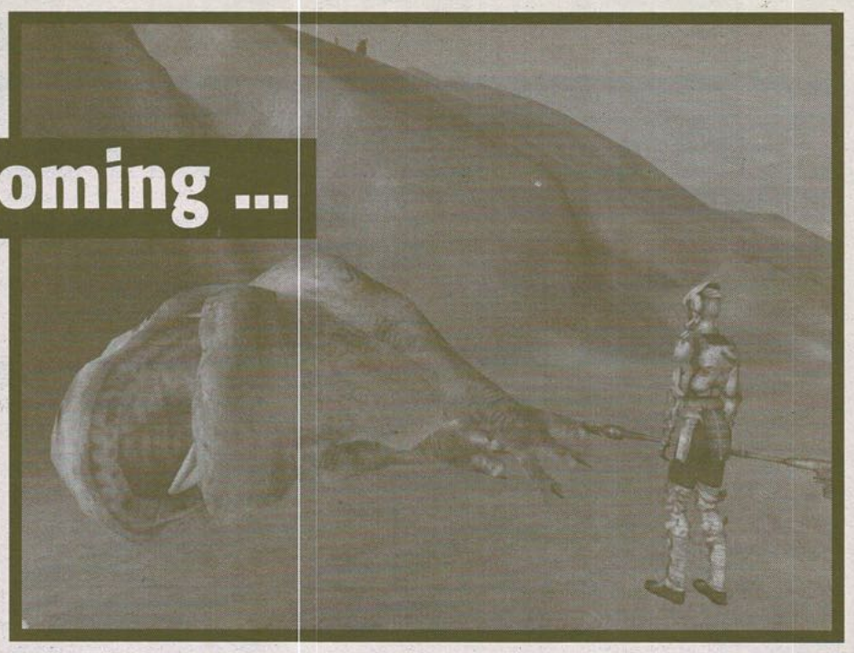
Government, educational, corporate PO's Welcome.

Prices & availability are subject to change without notice.
[2] Must be new system purchase w/monitor.
[3] Labour only includes any future upgrades/installs.
[4] Ask for details.

2233614

CYBERPLAY

PC gaming: What's coming ...



By CHRIS TALBOT

The non-stop holiday release schedule kept us hopping throughout November and December, but with the holidays now over, this is a quiet time for PC game releases. The relative silence from game publishers and developers usually lasts until sometime in February, with a few releases in January.

Of course, some major games get held over to January or February. For instance, *Tom Clancy's Splinter Cell*, developed at Ubi Soft's Montreal Studio, will be on store shelves shortly. The hit Xbox game about an agent working for a top secret NSA agency called Third Echelon should be just as fun to play on the PC as it was on Xbox. We should have a review of the game in next month's issue.

We've been hearing about some interesting upcoming games lately. Here are three of them:

Star Wars Galaxies: An Empire Divided

Currently in its second of three rounds of beta testing, *Star Wars Galaxies: An Empire Divided* is a massively multiplayer online role-playing game (MMORPG) set in George Lucas's popular space opera universe. Journalists first caught a whiff of *Galaxies* back in 2000, then saw the first demo of the game at Electronic Entertainment Expo 2002, and it's been getting a lot of attention (and for good reason).

The MMORPG will allow thousands of gamers to interact in the *Star Wars* universe in a way similar to that of *EverQuest* (incidentally, *Galaxies* is being developed by Sony Online Entertainment, the same company that brought us *EverQuest*). The game will take place in the time between the original *Star Wars* movie and *The Empire Strikes Back*. Players can create any number of different types of characters, but official *Star Wars* characters are off limits (however, some of them might appear from time to time throughout the course of the storyline). Participants in the massively multiplayer game (for those not familiar with MMORPGs, note that there is no offline portion of the game – it's online only) will be able to set themselves up with a virtual life (or lives) in the *Star Wars* universe on any of more than nine planets. It's still unknown exactly how many locations will be available at the outset of the game, but certain *Star Wars* staples like Tatooine, Naboo, Yavin IV and Endor have already been confirmed.

A number of professions and skill sets will also be available to create just about any type of *Star Wars* character imaginable, but players going into the game expecting to be Jedi should know it's not a career choice at first. SOE is putting a tight leash on the secrets to becoming a Jedi, and it's expected only a tiny percentage of the *Galaxies* community will actually learn to master the Force.

Expect *Galaxies* to arrive in stores on April 15. The game will include a one-month subscription to the service. Monthly fees have yet to be announced, though. Expect them to be somewhere in the vicinity of US$10 per month.

Also, SOE is already planning on its first expansion, which will probably be out six months to a year after *Galaxies* launches. *Space* will add space travel and starships to the game (potential Han Solos will just have to wait – sorry).

Greyhawk: The Temple of Elemental Evil

Pen-and-paper *Dungeons & Dragons* players will need no introduction to *The Temple of Elemental Evil*. As one of the most popular modules for *D&D* (it goes for big bucks on eBay), it's a classic, but it's about to enter the computer realm.

Based in the semi-popular World of Greyhawk (most *D&D* PC games are based on the more popular Forgotten Realms world), *The Temple of Elemental Evil* is being developed by Troika Games and published by Infogrames. Troika, a relatively new development studio, is known for its first and only release thus far, *Arcanum: Of Steamworks and Magick Obscura*, a fantasy RPG in a setting resembling the Age of Steam. *Arcanum*, which was published by Sierra, was released last year and received relatively favourable reviews.

The original *Temple of Elemental Evil* pen-and-paper module was for the *Advanced Dungeons & Dragons, 1st Edition* rule set, but Troika developers have updated the adventure to the current *3rd Edition* rules, which most *D&D* PC games are based on. From what we've been hearing, everything has been converted over and the story has remained somewhat intact. It sounds like a number of changes have been made, but we'll have to wait for the finished product to see just what they are.

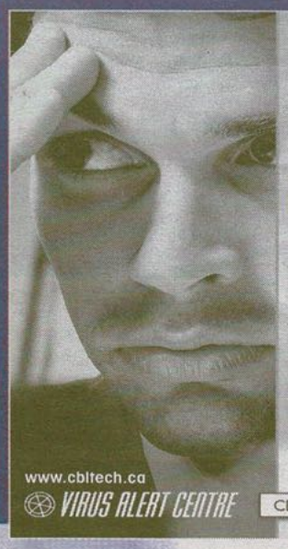
According to sources on the Web, *Greyhawk: The Temple of Elemental Evil* could make it to stores as early as June.

Rome: Total War

Last but certainly not least, a number of rumours about a new *Total War* game started surfacing toward the end of last year. It seems the rumours were true, although we've yet to see an official announcement.

The third game in the series will carry the name *Rome: Total War*, following in the wake of *Shogun: Total War* and *Medieval: Total War*. It's unknown when war game fans might get their hands on *Rome*, but they can probably expect gameplay very similar to the first two games in the *Total War* series.

Of course, Activision isn't quite finished with the second title in the series. *Medieval: Total War* will be getting an expansion pack in the spring called *Viking Invasion*. According to the official press release, the expansion will take place in AD 790, when the Norse invaded neighbouring nations. ◆



oh no.
virus.
media crash.
data loss. we can help.
Your data is important to us.
So are you.
1.800.551.3917
(t) 905.479.9938
(f) 905.479.1515
105-590 Alden Road
Markham, Ontario
L3R 8N2
Canada
www.cbltech.ca
VIRUS ALERT CENTRE
CBL Data Recovery Technologies, Inc.
The lost-and-found for 1s and 0s.

NETWORK SUPPORT
Novell.
Authorized Partner
PartnerNet.
• Novell, Microsoft Win9x/ME/2000/XP
• Network Installation and Service
• Software / Hardware Sales
• Business Vision Authorized Dealer
• Web Page Design
• Internet router - firewall setup
Novell. EDUCATION MASTER CNE
Reliable · Onsite · Reasonable Rates
http://www.comnetservices.com
ComNet Services
Tel: (416) 733-8098

Monitor Plus
REPAIR
Monitor Repair
Any size & model (incl. LCD)
Free estimates & Low prices
Monitor Sale
Buy & Sell(1 Year warranty)
Monitor Recycling Centre
1110 Finch Ave. W. (416) 663-8878 www.monitorplus.ca

Transfer your Videos & Old Films to DVD
- Broadcast Linear & Non Linear Editing
- Standards Conversions (NTSC/PAL/SECAM)
- Advanced DVD Authoring for Motion Picture Films
- Audio, Video, CD and DVD Duplication
- Professional Video Taping for Corporate & Televison Productions
- 8 & 16mm Films, Photos & Slides to Video or DVD
- High Definition Video/VGA Projector Rental
Overseas Video Lab (416) 244-1822
1359 Wilson Ave. Toronto, Ontario
www.overseasvideolab.com
Since 1980

MONITOR REPAIR & SALE
Refurb. Monitors with 1yr warranty
Lowest price guarantee!
REPAIR ANY KINDS MONITORS!
• Lowest price on the market
• 1yr warranty
• Same Day service.
• We have a monitor specialist engineer ready to serve you! (20yrs exp.)
800 Denison St. Markham Ont. 905-943-7609

Hi Tech CLASSIFIEDS

NEW RATES IN EFFECT

Advertise your used computers & technology equipment to over 600,000* computer users

FOR ONLY $15/AD * plus gst
OR PAY $25/AD * plus gst FOR BOTH PUBLICATIONS!

Toronto computes! The Computer Paper — Canada's Computer Information Source

CLASSIFIED ADS
$15 per ad plus GST up to 90 characters

SEMI DISPLAY CLASSIFIED ADS
$75 plus GST per column inch (min.1")

DEADLINES FOR COMING ISSUES

Issue	Book Before	Art Deadline	Distribution
The Computer Paper	*Wed. Feb. 26*	*Mon. March 3*	*Fri. March 14*
Toronto Computes!	*Wed. Feb. 12*	*Mon. Feb. 17*	*Fri. Feb. 28*

Category (check one)

❑ CD-ROM	❑ Hardware	❑ Games	❑ Office Equip.
❑ Consulting	❑ Internet	❑ PC Computers	❑ Services
❑ Employment	❑ Macintosh	❑ Printers	❑ Software
		❑ Repairs	❑ Wanted

Issue ❑ Toronto Computes! ❑ The Computer Paper ❑ Both

SEMI DISPLAY ADVERTISING

Single Semi Display	**(1.5" x 1.0")**	$80.25	$107.00
Medium Semi Display	**(1.5" x 1.5")**	$118.47	$160.50
Double Semi Display	**(1.5" x 2.0")**	$149.80	$187.25

Please send digital files only. *A charge of $30 will apply for work needed on ads sent as camera-ready art (hard copy). All ads must be prepaid by cheque, money order, Visa, Mastercard, or cash (please do not send cash by mail.) Make cheques payable to the designated paper in which your ad will appear. Cheques must be received at least two weeks prior to distribution date*

Submit your ads: E-mail to **adclass@tcp.ca**, FAX to **(416) 923-0247**
Mail to 625 Church St, Suite 600 Toronto ON, M4Y 2G1
or call Donna Eng Toll Free at 1-800-465-3517 ext. 1206
Each letter, space and punctuation is counted as a character

For one publication only:	1-90 Characters	$16.05	1-180 Characters	$32.10
For both publications:	1-90 Characters	$26.75	1-180 Characters	$53.50

AD INDEX

ABC	38	Humber College	58
AEI Internet	15	ICCT	18
AG Computers	42	Infonec	21
Angel Computers	8	Keit	29
AT&T - ADSL	11	LG	3
Auction4it.com	34	Logic Computer House	25
Bell Sympatico	5	Look DSL	9
BNC Compuware	24	MDG Canada	12
CanadaSys	16	Micropoint	28
CBL Data Recovery	61	Monitor Plus Inc	61
Certification Express	58	Monitor Repair Centre	61
Classifieds	59	New Legend	37
ComNet Services	61	NT Computer	44
Compu Canada	51	Overseas Video Lab	61
Computer Square Inc.	26	PAGE BYTES	53
Computer Warehouse	40	Pathway	7
ComputerFest 2003	48	PC 4 Canada Computer	39
Computers & Peripherals	46	PC Maniak	20
CRS Computer	60	PC Shop	53
Cybernet Communications	45	PC Village	23
Cybraian Computer	35	PC Warehouse Direct	10
Dell Canada	64	Premier Computer	27
Echo Online	2,17	Summit Direct	32
Elosoft	52	The Computer edge	43
Factory Direct	63	Triton Computer	55
Fazcom Training	53	Tweakbox.com	41
GoGo Computers	22	Union Computer	47
Grey Tech	30	Winnet Systems	55
Hitech Institute	53	World's Cheapest	47

Toronto Computes! is not responsible for errors or omissions.
The Ad Index is printed as a courtesy to our readers and advertisers.

Profile: Josh Avery

While some of us are still grappling with the finer points of Crayola (those stick drawings are fabulous!), there are people in the art community who have moved on to entirely new and considerably more sophisticated modes of expression. Josh Avery, a 25-year-old graduate of the Ontario College of Art and member of the famefame media label (famefame.com), falls into the second slot. Using nothing more than the detritus of our consumption-driven society, Avery employs "trash technology" to create kinetic sculpture. In layman's terms, he takes apart machines and reassembles the parts to create something new.

You can interact with Avery's latest machination, "Gorgon," Feb. 13-23 at ne plus ultra project space (ne-plus-ultra.com), 1080 Queen St. W.

Who: Josh Avery, kinetic sculpture and video artist.

Computer now used: PC Pentium I; "I also have another PC – a 286. I actually do use it. For doing video I use other people's computers. I use my 286 more than I use my other PC simply because all it has on it is DOS and I use that with a FORTH (a programming language for robotics) board that I have."

Computer first used: Apple IIc

Favourite computer: "I must say I do prefer PC. I see the attraction to Apple but there's elements to it I don't like ... I guess it's some ideology about Apple that I don't like."

Other technical gadgetry in use at this time (cells, PDA, etc.): None

Do you use your computer for play? "I'm pretty much a reformed video game addict. Same with the Internet. I don't have either because I know I'd use them too much. In the past, I would easily spend 6-8 hours a night doing that kind of stuff."

Best thing about the technology you have: "It's good enough for what I need. Just giving myself certain restrictions may be healthy for me. The technology that I do spend money on now are tools."

Worst thing: "Restrictions that impede me. Sometimes it's good and other times it pisses me off to no end."

What can't you live without? "Leatherman multi-tool. Because I was without one and it was a huge pain in the ass."

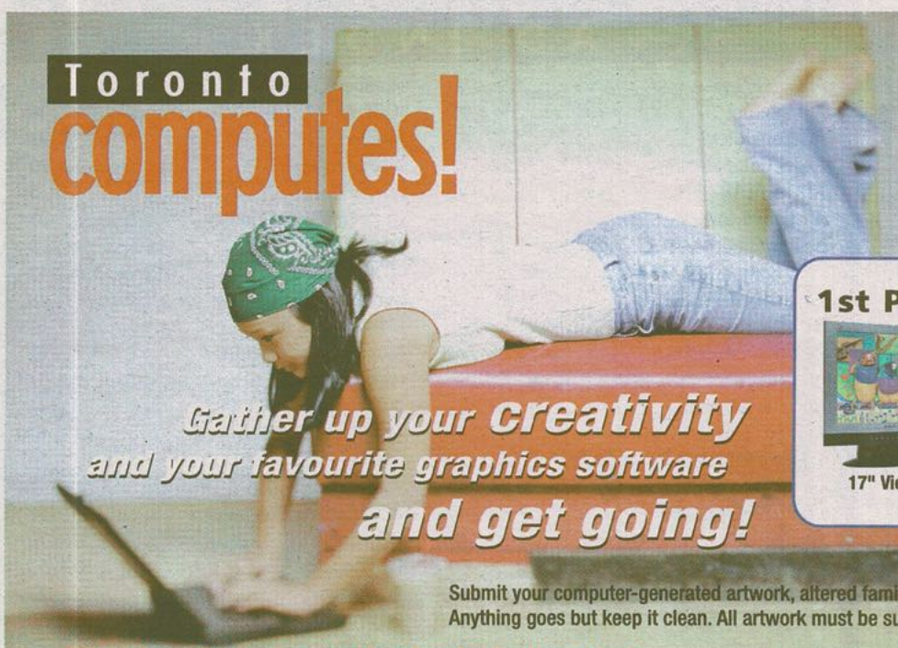
Is there anything you think you need? "Space. That's the one thing I've been trying to get for the last year or so. But a really nice computer would be nice to have. I used to work in video a lot and then I stopped for about a year, and now I have to use other people's computers. If I had my own I would be able to do a lot more work."

What frustrates you the most about technology? "Trying to use technology that is badly planned out – bad interface or bad design. And then if you're going to try and fix that it just takes you a huge amount of time."

Personal take on issues dealing with technology: "I don't think it can really be broken down into good or bad. I think it's just more how it is the individual decides to use it. I see it as a tool and any tool can be a weapon. Technology seems to be targeted to take from people – you're chained down by technology, you're chained down by cars, computers, whatever crap you happen to have that costs a lot of money and you have to pay it off. It just seems you end up getting trapped by the crap that you own and technology seems to help that a lot." ◆

–Samson Okalow

Toronto computes! presents the 6th Annual DIGITAL DESIGN CONTEST



1st Prize — ViewSonic See the difference

17" View Sonic Monitor

2nd Prize — hp invent

HP PSC 2210 Multifunction Printer

3rd Prize — PINE Building Brighter Ideas

Pine XFX Geforce 4 17x 440 VGA

Let your imagination go wild.

Submit your computer-generated artwork, altered family photos, or any other creative artistic endeavours, along with the form below, by May 1st, 2003
Anything goes but keep it clean. All artwork must be submitted in hard copy no larger than 9" x 12" (no disks or e-mails please).

TCI's 6th Annual digital design contest Entry Form Deadline May 1st, 2003

Name:.....
Address:.....
E-Mail:.....
Phone Number:.....
Age:.....
Occupation/school:.....
Title of Entry:.....
Hardware/Software used: .....
.....

NO DISK OR E-MAIL ENTRIES.

Contest Rules: Prizes must be claimed by August 30, 03. Winners must provide valid identification upon claiming prize. The prizes awarded are not transferable and cannot be redeemed for cash. To enter and to be eligible to win, persons must be residents of Canada, and not employees or be domiciled with an employee of *Canada Computes!*, its affiliate companies, or advertising and promotional agencies. The winners will be selected by *Toronto Computes!* on May 09, 03 from among all eligible entries received on or before contest close date. Winners will be contacted by telephone or e-mail. In the event that they cannot be contacted within the first week following the contest another entrant will be selected. All entries become the property of *Toronto Computes!* and may be used in subsequent advertisements for the contest. All entries must submitted by their artist and must be original work.

Send your entries to: Toronto Computes!, Digital Design Contest, 625 Church Street, Suite 600, Toronto, ON, M4Y 2G1 Attn: Editor

WE SHIP CANADA WIDE EXPEDITED!

CD-R MEDIA 100 CD SPINDLE — 80 MIN 40X CERT — $29.99 ME8110 BRAND NEW!

NOTEBOOK MEMORY 128MB $49.99 BRAND NEW! — 256MB $79.99 BRAND NEW!

USB PEN DRIVES
32MB PE0032 BRAND NEW! $39.99 — 64MB PE0064 BRAND NEW! $69.99
128MB PE0128 BRAND NEW! $99.99 — 256MB PE0256 BRAND NEW! $179.99

SLIMLINE CD JEWELCASES
25 PACK CD1510 $7.99
50 PACK CD1525 $11.99
200 PACK CD1520 $39.99
BRAND NEW!

IIIXE palm VX OEM 8MB WITH CRADLE — REFURBISHED $99.99 — REFURBISHED $149.99

M105 palm M125 8MB — REFURBISHED $119.99 — REFURBISHED $159.99

COMPACT FLASH
16MB CO0016 BRAND NEW! $19.99 — 64MB CO0064 BRAND NEW! $49.99
128MB CO0128 BRAND NEW! $79.99 — 256MB CO0256 BRAND NEW! $139.99

2.1 MEGAPIXEL DIGITAL CAMERA
-4x ZOOM
-5 PIC BURST
-FLASH / USB
-AUDIO & VIDEO RECORDING
-1.5" TFT LCD
-SELF TIMER
$169.99 ME0021 BRAND NEW!

hp invent PHOTOSMART 612 - 2.3MPxl DIGITAL CAMERA
2x OPTICAL ZOOM
FLASH LCD
$259.99 HP0383 REFURBISHED

MAJOR BRAND 15" MONITOR $79.99 MO3829 REFURBISHED

PHILIPS 17" MONITOR .25DP (UNBOXED) $129.99 REFURBISHED

52x CD-ROM DRIVE $34.99 CD5200 NEW PULL

DVD / CDRW COMBO DRIVE SAMSUNG LG Electronics
8x4x32 CDRW 8xDVD — REFURBISHED $89.99
32x10x40 CDRW 16xDVD — REFURBISHED $129.99

40x12x40 CD-RW DRIVE RETAIL BOXED KIT $89.99 CD4040 BRAND NEW!

D-Link 32MB MP3 PLAYER MP-105 $49.99 BRAND NEW!

SONIC blue RIO MP3 PLAYER
W/ 32MB $69.99
W/ 64MB $99.99
W/ 128MB $169.99
REFURBISHED

SONIC blue / GO.VIDEO*
DUAL-DECK DVD / VCR PLAYER DVR4000 — REFURBISHED $199.99
DVD / MP3 PLAYER PLAY DVD / CD VLD / MP3 DVP 853 — REFURBISHED $79.99

DIGITAL CAMERA WITH FLASH BRAND NEW!
640 x 480 $49.99
MEGAPIXEL $99.99

NOKIA "B" GRADE MONITORS
19" REFURBISHED $159.99
21" REFURBISHED $199.99

NOKIA SVGA MONITORS
19" REFURBISHED $189.99
21" REFURBISHED $249.99

CREATIVE MULTIMEDIA COMPUTER REMOTE CONTROL WITH RECEIVER $19.99 CR9023 BRAND NEW!

EXTERNAL USB CHASSIS
2.5" USB HA3930 BRAND NEW! $69.99
3.5" USB EX3309 BRAND NEW! $79.99
3.5/5.25 USB CA8300 BRAND NEW! $89.99

56K FAX/MODEM
INTERNAL BRAND NEW! $19.99
EXT. USB BRAND NEW! $49.99

4 PORT I/O CARD
USB BRAND NEW! $29.99
FIREWIRE BRAND NEW! $29.99

ETHERNET CARDS
ASOUND AS0100 BRAND NEW! $9.99
hp invent HP1820 BRAND NEW! $14.99

USB TO ETHERNET ADAPTERS
FARALLON ET2390 BRAND NEW! $19.99
HP hp invent HP1810 BRAND NEW! $29.99

1000' CAT5 ETHERNET CABLE + 100 RJ45 ENDCAPS
BRAND NEW! $69.99
WITH CRIMPER & TESTER $99.99

MERCURY TV TUNER WITH REMOTE $69.99 ME1920 BRAND NEW!

GeForce4 MX 440 64 MB w/TV out
SD-RAM $89.99
DDR-RAM $99.99
BRAND NEW!

64MB GeForce XTACY EVERYTHING TV OUT WITH REMOTE $139.99 BRAND NEW!

hp invent REFURBISHED LIKE NEW DeskJet Printers
DJ845 HP0845 $89.99
DJ930 2400x1200 USB HP0930 $119.99
DJ940 2400x1200 USB HP0940 $139.99

4 PORT ROUTERS WITH FIREWALL
INTERNAL PCI AS8922 BRAND NEW! $39.99
hp invent EXTERNAL HP1805 BRAND NEW! $59.99

PCMCIA CARDS
56K FAX/MODEM BRAND NEW! $59.99
10/100 ETHERNET REFURBISHED $49.99
2 PORT FIREWIRE FI2904 BRAND NEW! $69.99
2 PORT USB US0622 BRAND NEW! $69.99

hp invent WIRELESS 802.11b PCMCIA CARD $79.99 HN220W HP1800 BRAND NEW!

D-Link WIRELESS 3 PORT ROUTER W/ PRINT SERVER $119.99 BRAND NEW!

WIRELESS NETWORKING 22mb WIRELESS (2.4GHz)
SMC ROUTER $159.99
SMC PCMCIA $79.99
SMC PCI $119.99

WEBCAMS
ALARIS PARALLEL 320x240 BRAND NEW! $14.99
IBM OEM USB 352x288 BRAND NEW! $24.99

Logitech OPTICAL MOUSE
LO2839 LIKE NEW! $19.99
CORDLESS OPTICAL MOUSE LO0883 REFURBISHED $39.99

KENSINGTON
WEBRACER GLIDEPAD KE9895 $14.99 BRAND NEW!
ORBIT 3D TRACKBALL USB KE2389 $19.99 BRAND NEW!

Logitech KEYBOARDS
CLASSIC LO2390 BRAND NEW! $11.99
DELUXE AXCESS LO2837 BRAND NEW! $24.99
NAVIGATOR LO2933 REFURBISHED $29.99
NAVIGATOR LO0288 BRAND NEW! $34.99

Logitech CORDLESS FREEDOM OPTICAL
LO2898 REFURBISHED $49.99
LO3299 REFURBISHED $89.99

Logitech
WIRELESS RUMBLEPAD BRAND NEW! $39.99
WINGMAN STRIKEFORCE USB JOYSTICK FORCE FEEDBACK BRAND NEW! $49.99

SPEAKERS
Labtec. SPIN 50 $14.99
harman kardon $19.99
BENWIN CLT3 $19.99
BENWIN FLAT PANEL $29.99
Labtec. LCS-2422 $49.99

SOUND CARDS 64 BIT SB 128 LIVE 5.1
OEM SO0064 BRAND NEW! $17.99
CR0128 BRAND NEW! $29.99
OEM CR0051 BRAND NEW! $54.99

Logitech WIRELESS HEADSET
PC BRAND NEW! $49.99
PC / PHONE BRAND NEW! $69.99

COMPUTER BOOK LIQUIDATION SALE
THOUSANDS IN STOCK !!!
HARDCOVER & SOFTCOVER
$9.99 to $29.99
BUY 3 GET 1 FREE
Popular titles from... Microsoft Press, Dummies, Sybex, O'Reily, including... MCSE, Oracle, Java, xml, vbs, A+, CNE, CCNA, Linux, Unix, .NET, Windows 2000, XP, 98 and many more current titles at below wholesale prices !!!

Logitech
QUICK CAM EXPRESS USB 320 x 280 LO9898 REFURBISHED $29.99
640 x 480 LO1000 REFURBISHED $39.99
CLICKSMART 310 LO0310 REFURBISHED $59.99

SMC 8 PORT 10/100 HUB $39.99
hp invent 5 PORT 10/100 SWITCH $29.99
SMC 16 PORT 10/100 SWITCH $99.99
SMC 24 PORT 10/100 SWITCH $149.99

PHILIPS
REFURBISHED - 1 YEAR WARRANTY
17" FST .27dp $159.99
19" FST .27dp $219.99
21" FST .25dp $379.99
17" REALFLAT .25dp $179.99
19" REALFLAT .25dp $249.99
21" REALFLAT .24dp $499.99

FLAT PANEL
15" LCD MONITOR
ANALOG & DIGITAL INPUTS
MFR MODEL 150
NAME BRAND MANUFACTURER 1 YEAR WARRANTY
HP0050
$388.88 LIKE NEW!

IBM. ThinkPad 600
PII 300
64 MB RAM
4 GB / CD
13.3 TFT
$599.99 REFURBISHED

NAME BRAND DESKTOP
P200 / 2GB HDD / CD
WITH 32MB NB2005 NB2001 REFURBISHED $59.99
WITH 64MB NB2000 NB2006 REFURBISHED $79.99

hp invent VECTRA CELERON 400
64 MB RAM
4 GB CD-ROM
$149.99 REFURBISHED

NAME BRAND DESKTOP
PII 300
160MB / 3GB / CD-ROM
$169.99 NB3010 REFURBISHED

NAME BRAND DESKTOP
PII 400
64MB / 4GB / CD-ROM
$169.99 NB4000 REFURBISHED

NAME BRAND SYSTEM
PII 450 / 6GB / CD
128MB DESKTOP NB2455 REFURBISHED $199.99
64MB TOWER IB0425 REFURBISHED $199.99

IBM. ThinkPad
CEL 550
64 MB RAM
12 GB / CD
12.1 TFT W98
$699.99 REFURBISHED

NAME BRAND SYSTEM
128MB / 6GB / CD
PIII 450 TOWER IB0450 REFURBISHED $259.99
PIII 500 TOWER IB0505 REFURBISHED $299.99

NAME BRAND DESKTOP
PIII 700 128MB CD-ROM
WITH 10GB HDD REFURBISHED $379.99
WITH 20GB HDD REFURBISHED $399.99

emachines REFURBISHED
CELERON 1GHz 128 MB /20 GB CD ROM / WIN XP EM2930 $469.99
CELERON 1.8GHz 128MB / 40GB CDRW / WIN XP EM8018 $699.99

MAJOR BRAND
CEL 1.7GHz
128 MB RAM
40 GB
CD-RW
$599.99 REFURBISHED

MAJOR BRAND
ATHLON 1.6GHz
256 MB RAM
40 GB
CD-RW
$649.99 REFURBISHED

hp invent OMNIBOOK 4150
P3 500
128 MB - 5GB
CD-ROM
14.1" TFT
$849.99 REFURBISHED

MAJOR BRAND
P4 2.4GHz
256 MB RAM
40 GB
CD-RW
GeForce 4
$1199.99 REFURBISHED

SOLAR microsystems ATHLON XP1700
256 MB
30 GB
CDRW
$499.99 REFURBISHED

SOLAR microsystems ATHLON XP2000
256 MB
30 GB
CDRW
$579.99 PR2050 REFURBISHED

SOLAR microsystems intel P4 2.0 Ghz
256 MB
30 GB 7200 RPM
CDRW
$649.99 PR4225 REFURBISHED

TOSHIBA
P3 1.0GHz
256 MB RAM
20 GB / DVD
14.1 / WINXP
3 YEAR WARRANTY
$1599.99 TO5100 BRAND NEW!

hp invent PAVILLION XP1500
256 MB - 20GB
DVD/CDRW
15.1 - WINXP
$1649.99 REFURBISHED

factorydirect.ca
Canada's Computer Liquidators
SCARBOROUGH, TORONTO, HAMILTON, & BRAMPTON OPEN SUNDAY - Noon-5pm

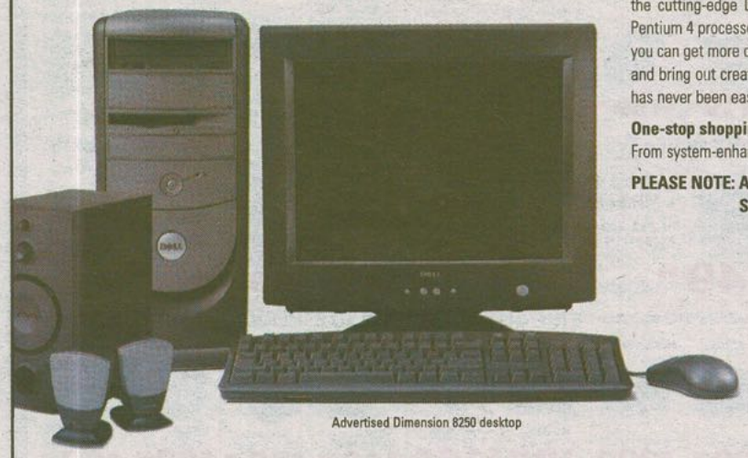
SCARBOROUGH 1309 Kennedy Rd. (416) 759-7788
TORONTO 290 College St. (416) 962-7788
BRAMPTON 258A Queen St. E. (905) 796-7788
ORANGEVILLE 218 Broadway Ave. (519) 941-6624
WOODBRIDGE 151A Jevlan Dr. (905)856-0151
HAMILTON 77 James St. N. (Inside Liquidation World) (905) 523-7671
LONDON NEW! 1299 Oxford St. E. (Inside Liquidation World) (519) 453-0610
KESWICK NEW! 24018 Woodbine Ave (Inside Liquidation World) (905) 476-2923

SEE WEBSITE FOR STORE HOURS & PRODUCT AVAILABILITY

Prices are already 3% Cash Discounted. Products available in Limited Quantities. Prices are subject to change without notice. Factory Direct is not responsible for Typographical errors. Some products may be refurbished or contain refurbished parts.

OUTLET HOURS: 10am-7pm MON.-WED. / 10am-8pm THU.&FRI. / 10am-6pm SAT. / 12pm-5pm SUN. (EXCEPT ORANGEVILLE & WOODBRIDGE)

Dell | Home



Advertised Dimension 8250 desktop

Enhance your creativity. With its **Intel® Pentium® 4 processor with Hyper-Threading Technology at 3.06GHz,** the cutting-edge Dimension™ 8250 desktop is designed to boost your creativity. Dell™ desktops powered by Intel Pentium 4 processors with Hyper-Threading Technology let you efficiently run several different applications at once so you can get more done in less time. You can also get productivity benefits on multithreaded applications that entertain and bring out creativity, like games and digital imaging applications. Prefer a notebook? Getting creative on the road has never been easier than with a Dell notebook powered by the **Mobile Intel Pentium 4 Processor-M.**

One-stop shopping. When you buy from Dell, you get one point of contact: a single source for everything you need. From system-enhancing peripherals to service and support - it's all available by phone or a click of your mouse.

PLEASE NOTE: Advertised prices exclude shipping and taxes except where otherwise noted. See footnote 1 for current shipping charges.

Plug this into your creative outlet.

Introducing the Dimension 8250 with an Intel® Pentium® 4 processor with Hyper-Threading technology at 3.06GHz.

DELL FINANCING

YOU MAY QUALIFY FOR NO MONTHLY PAYMENTS FOR 90 DAYS.[6]
Call Dell for full details.

DELL DEALS ONLINE

BUY ONLINE & GET BONUS SAVINGS ON SELECT SYSTEMS.

INTERNET ACCESS INCLUDED WITH ALL HOME SYSTEMS

6 months of AOL® Dial-up Internet Access OR 3 months of Bell Sympatico High Speed™ Internet Service. Modem required for dial-up. NIC required for High Speed or cable. **Restrictions and conditions apply. See FOOTNOTE 5.**

Dell | Desktops

NEW Dimension™ 4550 Desktop
Performance and Flexibility, Smart Value

$1299[1] Starting from **$33**/mo.* 48-mos. Purchase Plan[2]
QUOTE WHEN ORDERING: **E Value Code: 71123 CHF5CP2**

- **Intel® Pentium® 4 Processor at 2GHz with 512K L2 Cache**
- 256MB DDR-SDRAM at 266MHz
- 60GB[3] Ultra ATA-100 Hard Drive (7200 RPM)
- 17" E772 Monitor (16.0" v.i.s.)
- 32MB ATI® RAGE™ Ultra Graphics Card
- 40X/10X/40X CD-RW Drive with Roxio's Easy CD Creator®
- SB Live! 5.1 Digital Sound Card
- Harman Kardon HK-206 Speakers
- Integrated Intel® PRO 10/100 Ethernet
- Microsoft® Windows® XP Home Edition
- WordPerfect® Productivity Pack with Quicken®
- 1 Year In-Home Service[4]
- **Upgrade to 3 Year In-Home Service[4] for $159[1]**

Recommended Upgrades:

- Harman Kardon HK-395 Speakers with Subwoofer — Add $50[1]
- 17" M782 Flat Screen CRT Monitor (16.0" v.i.s.) — Add $80[1]
- Lexmark Z35 Printer (sku A0050038) — Add $89[1]

NEW Dimension 8250 Desktop
Enhanced Performance

$2599[1] Starting from **$66**/mo.* 48-mos. Purchase Plan[2]
QUOTE WHEN ORDERING: **E Value Code: 71123 CHYPCP2**

- **Intel Pentium 4 Processor with HT Technology at 3.06GHz**
- 256MB PC1066 RDRAM
- 60GB[3] Ultra ATA-100 Hard Drive (7200 RPM)
- 19" M992 Flat Screen CRT Monitor (18.0" v.i.s.)
- 64MB DDR NVIDIA® GeForce4 MX™ Graphics Card with TV-Out
- 48X CD-RW/DVD-ROM Combo Drive with Roxio's Easy CD Creator®
- SB Live! 5.1 Digital Sound Card
- Harman Kardon HK-395 Speakers with Subwoofer
- Integrated Intel® PRO 10/100 Ethernet
- Windows XP Home Edition and Work Suite 2003
- 1 Year In-Home Service[4]
- **Upgrade to 3 Year In-Home Service[4] for $159[1]**

Recommended Upgrades:

- SB® AudigyZ™ Sound with DVD Audio — Add $70[1]
- 128MB DDR ATI® MOBILITY™ Radeon™ 9700 TX Graphics Card with TV-Out & DVI — Add $200[1]
- Lexmark X85 All-In-One Printer (sku A0063988) — Add $239[1]

Dell | Notebooks

Inspiron™ 4150 Notebook
Thin and Light Mobility

$1999[1] Starting from **$51**/mo.* 48-mos. Purchase Plan[2]
QUOTE WHEN ORDERING: **E Value Code: 71123 CHCP402**

- **Mobile Intel Pentium 4 Processor-M at 1.80GHz**
- 14.1" XGA TFT Display (1024 x 768)
- 256MB DDR-SDRAM at 266MHz
- 30GB[3] Ultra ATA Hard Drive
- Modular Floppy Drive
- Fixed Internal 8X Max. DVD-ROM Drive
- 16MB DDR ATI® MOBILITY™ RADEON™ 7500 AGP 4X Graphics
- Internal Modem and NIC Included
- Primary 8 Cell Battery
- Windows XP Home Edition
- WordPerfect Productivity Pack
- 1 Year Express Depot Service[4]
- **Upgrade to 1 Year CompleteCare™ coverage[4] for $99[1]**

Recommended Upgrades:

- Targus NB Cable Lock (sku A0049823) — Add $36[1]
- 32MB ATI® MOBILITY™ RADEON™ 7500 AGP 4X Graphics — Add $119[1]
- Dell™ TrueMobile™ 1150 Wireless[5] Networking PC Card — Add $149[1]

Inspiron 8200 Notebook
Desktop Performance to Go

$2199[1] Starting from **$56**/mo.* 48-mos. Purchase Plan[2]
QUOTE WHEN ORDERING: **E Value Code: 71123 CH8CP02**

- **Mobile Intel Pentium 4 Processor-M at 2.0GHz**
- 15" SXGA+ TFT Display
- 256MB DDR-SDRAM at 266MHz
- 30GB[3] Ultra ATA Hard Drive
- Dell DualPoint Keyboard
- Modular Floppy Drive
- 8X Max. DVD-ROM Drive
- 32MB DDR NVIDIA® GeForce4 440 Go™ AGP 4x Graphics
- Internal Modem and NIC Included
- Deluxe Nylon Carrying Case
- Windows XP Home Edition
- WordPerfect Productivity Pack
- 1 Year Express Depot Service[4]
- **Upgrade to 1 Year CompleteCare coverage[4] for $99[1]**

Recommended Upgrades:

- Dell 64MB USB Memory Key — Add $69[1]
- Dell TrueMobile 1150 Wireless[5] Networking PC Card — Add $149[1]
- Windows XP Professional — Add $150[1]

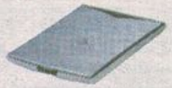
Dell | Software & Peripherals

Enhance your Dell PC!

Canon i320 Printer

$99[1] SHIPPING INCLUDED sku A0066506

Enjoy true-to-life photos with up to 2400 x 1200 colour dpi resolution and printing speeds of up to 10 ppm black and 6 ppm colour.



Canon Canoscan Lide 30 USB Scanner

$149[1] SHIPPING INCLUDED sku A0066589

Optical resolution of 1200 x 2400 dpi and 48-bit colour depth, recognizing 281 trillion colours.

***Based on 9.99% interest per year. The applicable interest rate and your monthly payments may be higher depending on your creditworthiness as determined by lender in its sole discretion. See FOOTNOTE 2 for details.**

intel inside pentium 4

The Brain Inside Your PC

Creativity and productivity. Easy as DELL™

Order the easy way. **Visit www.dell.ca** or call toll-free **1-877-517-6596**

MON-FRI 8AM-10PM EST • SAT 10AM-6PM EST • SERVICE IN FRENCH: MON-FRI 8AM-7PM EST • SAT 10AM-6PM EST

Dell recommends Microsoft® Windows® XP Professional for Mobile Computing

Advertised prices are available now until February 28, 2003, 10 pm EST for phone orders, 5pm EST for online orders. Advertisedconfigurations and limited time offers only available to customers in Canada. All purchases subject to your Customer Agreementor Dell's standard terms of sale, Dell's limited warranty terms and the applicable Dell or third party service agreement. Copies available on request or at www.dell.ca. **All promotional offers are subject to cancellation or change at any time without notice.** Remember to back-up your data. Dell is not responsible for lost or corrupt data or software. Dell reserves the right to limit quantities to five (5) systems per customer. Dell cannot be responsible for errors in typography or photography **1. SHIPPING AND APPLICABLE TAXES NOT INCLUDED. CURRENT STANDARD SHIPPING CHARGES: $139 FOR DIMENSION, $119 FOR INSPIRON AND SMARTSTEP.** Prices and specifications are subject to error and change without notice. Not combinable with volume or other discounts. Availability may be limited. Software does not include documentation and may differ from retail version **2. SHIPPING AND APPLICABLE TAXES NOT INCLUDED.** 48-Month Purchase Plan offered through Dell Financial Services Canada, an independent entity, to qualified customers, subject to credit approval and availability. Minimum transaction size of $799 is required (before shipping and applicable taxes). No down payment required. Monthly payments are based on advertised prices depicted for a 48 month term, calculated using an interest rate of 9.99% per annum. Your monthly payments may be higher depending on your creditworthiness as determined by the Lender in its sole discretion. Available interest rates per annum are 9.99%, 13.99%, 16.99%, 17.99%, 18.99%, 21.99%, 26.99% and 28.99%. Finance example: $1,299.00 @ [9.99%], [13.99%], [16.99%], [17.99%], [18.99%], [21.99%], [26.99%], [28.99%] per annum equals [$32.94], [$35.49], [$37.48], [$38.15], [$38.83], [$40.92], [$44.53], [$46.01] per month for 48 months. Total payable: [$1,581.12], [$1,703.52], [$1,799.04], [$1,831.20], [$1,863.84], [$1,964.16], [$2,137.44], [$2,208.48]. Full cost of borrowing: [$282.12], [$404.52], [$500.04], [$532.20], [$564.84], [$665.16], [$838.44], [$909.48]. Terms subject to error and change without notice. Please contact Dell for full details **3.** For hard drives, GB means 1 billion bytes; total accessible capacity varies depending on operating environment **4.** See Dell's limited warranty terms and the applicable Dell or third party Service Contract for service and warranty terms and conditions. Copies available on request or at www.dell.ca. Services may not be available in all areas. In-home service refers to **Dell's Next Business Day On-Site Service.** In-Home service may be provided by a third party contract with customer and may not be available in certain areas. TECHNICIAN WILL BE DISPATCHED, IF NECESSARY, FOLLOWING PHONE-BASED TROUBLESHOOTING. Dell must notify the service provider before 5:00 pm local customer time; otherwise it may take an additional business day. **CompleteCare coverage** only covers internal hardware components and does not cover peripheral devices, damage or loss caused by fire, theft, intentional acts, or by normal wear if the normal wear does not affect performance **5. All Promotional Internet Access Offers:** Limited time offers available to Canadian residents with the purchase of a Dimension or Inspiron computer for home use. To be eligible, you must be within the service area of the Internet service provider you choose; final eligibility for service will be determined by the Internet service provider. You must be a new subscriber and register at time of computer purchase (for AOL must register within 6 months of invoice from Dell). You must accept the Internet service provider's then current terms of service. Promotional period begins upon registration and cancellation must be made during this period in accordance with the internet service provider's then current terms of service, otherwise service will continue and you will be billed the Internet service provider's then current monthly rate. Contact the Internet service provider for a copy of their then current terms of service. Limit one (1) offer per computer per household. Dell systems must be equipped with a Network Card (Ethernet card) for high-speed access or a modem for dial-up access. Offers not combinable with any other Internet access offers from Dell nor other offers from the respective Internet service providers. **For Shaw High Speed**, full installation and cable modem is provided. **For Rogers Hi-Speed**, a $10 monthly fee may apply to non-cable subscribers. Must have a major credit card to register. Cable modem is provided. Offer not available to employees of the Internet service provider or its affiliates, including persons with whom they are domiciled. **For AOL,** you must be 18+ and have a major credit card. During six month included membership period, members outside AOL Canada Inc.'s local calling areas may incur telephone charges on their phone bill. Communication surcharges, telephone bill charges, and premium service area charges will apply if you use the services during your six months included AOL membership. See online registration for complete details. AOL is not available for Windows 3.1, Windows NT and MacIntosh. AOL is a registered trademark, and the triangular logo, AOL Instant Messenger, Buddy List, Parental Controls and the AOL triangle logo are trademarks, of America Online, Inc. **For Bell Sympatico High Speed**, Service only available to residential customers in Ontario and Quebec where technology permits. Must register by major credit card or pre-authorized payment. Offer applicable to the self-installation option only and does not include the cost to correct any wiring configurations in customer's residence. One time activation fee of $29.95 is currently waived. Sympatico High Speed is a trade-mark of Bell Canada **6.** 90 Day Deferred 48-Month Purchase Plan offered through Dell Financial Services Canada, an independent entity, to top tier credit qualified customers as determined by Lender in its sole discretion, subject to availability. Minimum transaction size of $799 is required (before shipping and applicable taxes). Not available on past orders or past financing. Additional restrictions and conditions apply. Call Dell for full details **7.** Connect at rate of 11 Mbps up to 100m from connected access point. Range may vary due to interference such as transmission barriers, walls and building material ™ Dell, the Dell logo, Dimension, Inspiron, Axim and CompleteCare are trademarks of Dell Computer Corporation. ™ Microsoft, MS, Intellimouse, Windows and Windows NT are registered trademarks of Microsoft Corporation. ™ Intel, the Intel Inside Pentium III logo, the Intel Inside Pentium 4 logo, Pentium, Celeron are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries. ™ All other trademarks and registered trademarks are the property of their registered holders. © 2003 Dell Computer Corporation. All rights reserved.

AD CODE TC17

225819 14